INSTRUCTIONAL BELIEFS AND PRACTICES AMONG ALTERNATIVE SCHOOL TEACHERS

By

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TABLE OF CONTENTS

Page

ACKNOWLEDGMENTS iii

LIST OF TABLES vii

ABSTRACT viii

CHAPTER

1 INTRODUCTION 1

Purpose of the Study 6
Research Questions 6
Definition of Terms 6
Significance of the Study 8
Limitations 9

2 REVIEW OF LITERATURE 10

Alternative Education 10
    Definition of and Rationale for Alternative Education 10
    Curriculum in Alternative Education 13
    Characteristics of Teachers and Teaching in Alternative Education 15
Models of Teaching 18
    Teachers' Explicit Use of Models 22
Teachers' Beliefs 24
    Difference Between Belief and Knowledge 25
    Belief and Instructional Practice 25
    Belief and Attitude 27
Summary 28

3 METHODS 29

The Setting and the Participants 29
Instrumentation 33
    Teacher Demographic Questionnaire 33
    Teacher Behaviors Preferences Survey 33
    Teacher Interview Protocol 41

    Teacher Observation Protocol 41
  Data Collection 42
  Data Analysis 43
  Researcher Bias and Trustworthiness 44

2 RESULTS 47

  Research Question 1: What Are Alternative Education Teachers' Beliefs About Their Instructional Practice? 47
  Research Question 2: Do Teachers Report a Preference for a Family of Models and Specific Models of Teaching? 53
    Survey Results 53
    Interview Responses 56
  Research Question 3: How Do Teachers Teach in Alternative Schools? 57
    Examples of Student-Centered Teaching 57
    Examples of Teacher-Centered Teaching 61
  Research Question 4: Do Teachers Use an Explicit Model of Teaching During Classroom Instruction? 64
    The Behavioral Family: Mastery Learning 67
    The Information-Processing Family 68
    The Social Family: Partners in Learning 72
  Research Question 5: Is There a Correspondence Between Alternative Education Teachers' Beliefs and Actual Instructional Practices? 73
  Summary 75

5 SUMMARY AND CONCLUSIONS 77

  Summary of the Findings 77
    Teachers' Beliefs 77
    Interview Responses 78
    Teacher Observations 78
    Models of Teaching 78
    Correspondence Between Belief and Instructional Practice 79
  Conclusions and Implications 79
    Models of Teaching 81
    The Teacher Behavior Preference Survey (TBPS) 82
    Reduction in Classroom Interruptions 83
    Belief, Practices and Outcomes 83
  Recommendations 84
    Instructional Practices in Regular and Alternative School Settings 85
    Staff Development and Teacher Training in the Models of Teaching 85
  Summary 86

APPENDIX

A TEACHER DEMOGRAPHIC QUESTIONAIRE 87

B TEACHER INTERVIEW PROTOCOL 89

C TEACHER OBSERVATION PROTOCOL 91

D INFORMED CONSENT DOCUMENT 93

E INSTITUTIONAL REVIEW BOARD APPROVAL 95

LIST OF REFERENCES 97

BIOGRAPHICAL SKETCH 105

LIST OF TABLES

Table page

2.1 An Overview of Social Teaching Models 19

2.2 An Overview of Information-Processing Teaching Models 20

2.3 An Overview of Personal Teaching Models 21

2.4 An Overview of Behavioral Systems Teaching Models 22

3.1 Pilot Test of Teachers' (N=14) Preferences for Teacher- and Student-Centered Instructional Practice 35

3.2 Pilot Test Teachers' Preferences for Teacher- and Student-Centered Instructional Practices by Items (N=14). 36

3.3 Pilot Test Teachers' (N=14) Preference for Families of Teaching Models by Rank Order and Percentage of Items 40

4.1 Teachers' (N=8) Preference for Teacher- and Student-Centered InstructionalPractices. 47

4.2 Teachers' (N=8) Preferences for Teacher- and Student-Centered Practices. 49

4.3 Teachers' (N=8) Preference for Family of Models by Rank Order and Percentage of Items. 53

4.4 Frequency of Student- and Teacher-Centered Instructional Practices Among Teachers (N=8) 63

4.5 Frequency of Instructional Models Observed 65

4.6 Frequency of Family of Teaching Models Observed Among Teachers 66

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There is little research regarding the particular instructional practices that are being used in the alternative classroom, and whether teachers' instructional beliefs are enacted during classroom instruction. The purpose of this study was to investigate the correspondence between teachers' self-reported beliefs and instructional preferences with their actual instructional practices. This study describes the program, school, and beliefs of teachers. Also, this study describes the observable instructional practices among teachers in an alternative school setting.

The participants in this study were eight teachers from a population of 20 teachers who worked with 64 female students enrolled in an alternative education program serving at-risk students. Data were collected using survey methods, interview, observations, and field notes. Comparisons using models of teaching were made across classrooms within the school program.

The results of the study showed that there was a consistency between what teachers believe regarding their instructional practices and the enactment of those practices during classroom teaching. Overall, teachers reported a preference for and demonstrated use of student-centered instructional practices. The results confirmed that teachers reported a preference for particular families of teaching models. Classroom observations showed that, overall teachers used explicit models of teaching during instruction.

CHAPTER 1
INTRODUCTION

A teacher's personal beliefs serve as a framework for making curriculum decisions. Typically, the way that a teacher delivers instruction is reflective of these beliefs (Ashton, Webb, & Doda, 1983; Fletcher, 1990; Ross, 1994). A variety of factors impact the way teachers choose to deliver instruction. Teachers' beliefs coalesce during individual learning experiences as students and formalized learning experiences during pre-service and professional training in education.

Students' individual learning needs must also be considered while planning and providing instruction (Dunn, Dunn & Price, 1989; Greer, 2002; Hunt, Touzel & Wiseman, 1999; Joyce & Calhoun, 1996; Joyce & Weil, 1996). For example, a teacher is likely to recognize that the learning needs of students who are placed in alternative settings are quite different when compared to the learning needs of regular educational students. Considerable pre-planning is required to determine the appropriate type of instruction for alternative educational students (Bucci & Reitzammer, 1992; Catterall & Moody, 1997; Chalker, 1996; Cookson, 2000; Goodman, 1999; Raywid, 1994). The academic achievement of alternative educational students is typically significantly below grade level. Their ability to learn is often compromised by emotional illness, family dysfunction, and social or emotional maladaptive behaviors.

The purpose of alternative education is to help students acquire socially appropriate habits of functioning that typify their age appropriate peers. Educational activities are directed at promoting student engagement and on-task behavior during learning. The school's commitment to addressing students' emotional and social maladies that impede their academic achievement is integral to fostering their success. These students generally benefit from direct instruction followed by immediate feedback, positive reinforcement, praise for on-task behavior, and extrinsic motivation for completing an assignment (Greer, 2002). The teacher may be compelled to monitor at-risk students more frequently than students who are intrinsically motivated (Good & Brophy, 2000). Offering praise to students who have completed their assignments may be observed more frequently than praise for accuracy. This type of feedback is commonplace among alternative educational schools that seek to reinforce on-task behavior during learning (Kennedy & Morton, 1999).

Like other schools, the quality of instruction provided by alternative schools is dependent upon teacher effectiveness. Teacher effectiveness is influenced by an individual's sense of efficacy, personal beliefs, and instructional practices. Teacher efficacy, the teacher's belief regarding his or her capacity and ability to bring out student learning " . . .is believed to be one of the most significant socio-psychological factors influencing teachers' work" (Smylie, 1990, p. 49).

Teachers' beliefs directly impact their practice. What a teacher believes affects his or her ability to teach (Ashton , Webb, & Doda, 1983; Fletcher, 1990; Ross, 1994). Studying the relationship between what teachers believe concerning curriculum and instructional practice in conjunction with the actual enactment of teaching can offer insight concerning the instructional practices that characterize the system of schools and highly effective practices. There are several studies regarding effectiveness of instruction in a regular public school classroom (Ashton, Webb, & Doda, 1983; Bandura, 1993;

Fletcher, 1990; Raudenbush, Rowen, & Cheong, 1992; Ross, 1994), yet little to no research concerning the nature of instruction in alternative school classrooms. As the number of at-risk students attending alternative schools continues to increase, the need for evidence-based studies of instructional effectiveness is critical. Assessing the quality of instruction in alternative educational settings will be helpful in determining the success of these schools.

This study emerged from the researcher's interest in learning about the types of instructional practices that teachers believe are important to teaching the difficult to reach, at-risk students. The need for this study emerged from an observation that there is a lack of research about alternative education teachers' instructional beliefs.

The researcher investigated a group of teachers' instructional beliefs and practices within one alternative school. Therefore, this study is a description of what teachers believe about their instructional practices and the use of teaching models. This study is a comparison of those beliefs with those practices and teaching models that were observed during classroom instruction.

Understanding the characteristics and formative experiences of students classified as at-risk helps to frame the significance of this study. One of the attributes of at-risk students is retention. Retention in the early grades is a strong predictor for identifying students at risk for dropping out of traditional public school (Levine & Levine, 1996). Many school-age children who have repeated grades have had early and constant exposure to threat and high stress and live in families of violence. They are often the kind of individuals who have the most difficulty attending to learning experiences and engaging in classroom activities (Jensen, 1998). Students at risk often become disenfranchised and disaffected from learning early in their school experiences. Events that tend to trigger disaffection include relocation, illegal drug use, perceived racism, divorce, remarriage, unfair teachers, and violent behavior (Kennedy & Morton, 1999). When students' most basic needs for security, safety, and affiliation are not met, it is difficult for learning to occur (Maslow, 1968; 1970). By increasing engagement in learning, focusing on higher order skills, and reducing stress, students are more likely to acquire functional behaviors and habits that are fundamental to learning (Levine & Levine, 1996).

Some researchers have asserted that the public school system in the United States often places little emphasis on developing students' problem-solving skills or critical thinking skills. However, this practice is even more pronounced for students who are disadvantaged low achievers (Levine & Levine, 1996; McMillan & Reed, 1993; Rumberger, 1994). Often these individuals sit passively for long periods of time and they have few opportunities to engage in activities that require higher cognitive skills. Rumberger claimed that educators lack an understanding about what interventions work the best for potential dropouts or how they should be implemented within content areas and across the total school curriculum. Levine and Levine (1996) and Rivera-Batiz (1990) have observed that emphasizing basic skills such as reading achievement and numeric literacy were critical to lowering levels of delinquency among adolescents and sustaining employment.

Students identified as at-risk can benefit from guided instruction that builds on their existing knowledge base and intuitive reasoning (Jacobson, Potts, & Lehrer, 1994). Because active learning generally results in higher levels of engagement than passive instruction, students who are exposed to challenging learning environments are more likely to be successful. Anchored instruction or situated cognition that involves multimedia simulations has also been shown to promote independent learning and achievement among at-risk juveniles (Hickey, 1995).

Some urban schools comprised largely by disadvantaged students have demonstrated significant gain scores as a result of improved instructional activities (Levine & Levine, 1996). For example, when integrated learning activities were used, a group of alternative middle school students showed improvement. Structuring the presentation of science lesson concepts across multiple contexts strengthened fluency and ability to transfer the application of these concepts (Eggebrecht et al., 1996). Moote and Woodnarski (1997) reported that use of kinesthetic, auditory, and visual modalities during exercises that involved problem-solving fostered improvement in communication skills, critical thinking, and self-efficacy.

Researchers have also observed that maladaptive behavior, deficient home environment, and lack of basic skills are common among adolescents who are categorized as at-risk and are served by drop-out prevention programs. These students tend to suffer from a high level of stress that is often a byproduct of the physical abuse, neglect, poor nutrition, and lack of parental support. Alternative educational students tend to experience dysfunctional home lives, inappropriate adult role models, and/or unsuitable behaviors that influence their cognitive ability and capacity for engagement. At-risk students often demonstrate poor academic achievement. Promoting psychological health and well being is crucial to their potential for successful school experiences (McCombs, 1998).

Purpose of the Study

The purpose of this study was to investigate the correspondence between teachers' self-reported beliefs regarding their instructional preferences and their actual instructional practices. Teachers in an alternative school setting were observed during classroom instruction. Running notes documenting their observable instructional behavior were recorded and transcribed. The transcripts were analyzed to determine if teachers used instructional practices they self-reported and if they explicitly used one or more of Joyce and Weil's (1996) models of teaching. Use of a particular model of teaching was identified by documenting teachers' observable behavior and by describing the phases of instruction, support system, level of structure and teachers' and students' roles demonstrated during classroom instruction.

Research Questions

The following research questions were investigated in this study.

1. What are teachers' beliefs about their instructional practices?
2. Do teachers report a preference for a family or a specific model of teaching?
3. How do teachers teach in alternative schools?
4. Do teachers use an explicit model of teaching during classroom instruction?
5. Is there a correspondence between teachers' beliefs about their instructional practice and use of teaching models and their enactment during classroom instruction?

Definition of Terms

The terms that follow below are used in this study.

Alternative education teacher refers to an individual who provides instruction to students who have been identified as at-risk.

Alternative education programs refer to the type of education that is provided to students who have been identified as at-risk and who attend a specialized school.

At-risk refers to students who require specialized instructional and support services due to academic failure, disciplinary problems, expulsion, premature school departure to prevent dropping out (Chalker, 1996).

Behavioral models refers to a group of teaching frameworks such as mastery learning, direct teaching, programmed learning, and simulation (Joyce & Calhoun, 1996; Joyce, Weil & Calhoun, 2000) that are based upon the theory that humans can learn through feedback and adjustment (Harris, 1998).

Belief refers to one's perceptions, convictions, and ideas about a concept.

Classroom instruction refers to allocated time during which the teacher provides instruction to students within the classroom.

Correspondence refers to the degree of association or connection between beliefs and practices.

Explicit refers to something that is overt, unambiguous, and visible.

Family of models refers to a classification of approaches to teaching. The four families of models are grouped by social, information processing, personal, and behavioral systems (Joyce, Weil & Calhoun, 2000).

Information processing models refers to the group of teaching approaches that aim at helping students to learn how to organize data, develop concepts, and solve problems (Harris, 1998).

Instructional practices refers to the methods that the teacher uses while delivering instruction.

Models of teaching are ways of delivering instruction which share the characteristics of a social system, syntax (phases of instruction), principles of reaction, and a support system to optimize student learning (Joyce, Weil & Calhoun, 2000).

Personal models refers to instructional teaching approaches that are used to encourage personal growth and self-understanding among students (Behar-Horenstein & Ganet-Sigel, 1999; Harris, 1998).

Practice refers to the way a teacher carries out and performs a lesson in the classroom in an observable system, routine, or procedure.

Preference refers to a predilection, partiality or inclination toward doing something in a particular way.

Social models refers to the group of instructional approaches that emphasize learning through student interactions during group investigations, cooperative learning, role play, and social inquiry (Harris, 1998).

Significance of the Study

Using quantitative methodology, several researchers have explored how organizational structures have reduced the drop out rate or improved student academic achievement test scores among alternative education students (Rossi & Stringfield, 1997). Researchers generally agree that viability, student retention, and academic achievement are primary indicators of successful alternative schools. Other researchers assert that determining the effectiveness of alternative school education remains difficult. Previous studies have focused at the organizational or school level, while little is known about the classroom level. What type of instruction do students in alternative schools receive? What models of teaching are used by alternative education teachers? The findings from this study will contribute to previous studies about teachers' beliefs and practices. Yet, this study was designed to promote an understanding about the association between beliefs of and practices among alternative education teachers within a single setting. The results from this study may offer insight as to whether models of teaching are used in an alternative setting. Findings about the correspondence between beliefs and practices or the use of models of teaching will provide a portrait of behaviors that depict classroom instruction. The findings from this study can serve as the basis for dialogue between faculty and administrators who provide learning experiences that lead to desired student outcomes and faculty development. Findings from the study will also test theoretical propositions that teachers' beliefs are often reflected during classroom instruction.

Limitations

A small number of teachers participated in this study. They were representative of individuals who teach in a unique setting that was a bounded instance of space and time.

1. The student population that participated in this study was comprised solely of female students.
2. The population of teachers in this study were solely female.
3. The findings in this study are limited solely to the context in which the study was conducted.

CHAPTER 2
REVIEW OF LITERATURE

The purpose of this chapter is to present a review of the literature concerning alternative education, teaching models, and teachers' beliefs.

Alternative Education

The purpose of this section is to (a) provide a definition of and rationale for alternative education; (b) describe studies on curriculum in alternative education; and (c) present an overview of the studies that have focused on characteristics of teachers and teaching in alternative schools.

Definition of and Rationale for Alternative Education

Alternative schools were created as "alternatives to schools" (Holzman, 1997, p. 81) for students, parents, and teachers who preferred an educational setting other than the traditional school (Altenbaugh, 1999). One essential goal of alternative schools is to keep at-risk students from dropping out of school. The first alternative school was opened in 1786 (Mintz, 1994). The need for alternative education schools is underscored by Rossi and Stringfield (1997), who reported that, "By the year 2020, the majority of students in America's public school will be living in circumstances traditionally regarded as placing them at risk of educational failure" (p. 1).

The emphasis on preventing students from dropping out of school is based primarily on economics. When students leave school before graduation, the economic impact on the country and the individual person has been predictably devastating. People who do not earn a high school diploma or the equivalent often spend their lives in poverty (Woodward & Fergusson, 2000).

Alternative and traditional education differ in many ways. One of the primary differences is that alternative educators place an emphasis on the psychological aspects of the learner. Learning experiences that promote character building and interpersonal growth are commonplace within an alternative school curriculum. The curriculum within traditional public schools, in contrast, focuses primarily and often solely on the acquisition of academic skills and mastery of reading and mathematics (Kohl, 1994). The educational philosophy of alternative schools is grounded in the belief that the needs of the whole child should be met and that a child can not learn if basic needs are unmet. Students must be clothed, fed, healthy, and made to feel safe in order to become engaged in learning (Kronick, 1997). Thus, the goal for alternative education is to promote students' emotional and social well-being simultaneously as well as provide an education that is responsive to their cognitive ability and psychological capacity (Pianta & Walsh, 1996).

The organizational structure of alternative schools is simple since they are small and comprised by fairly homogenous student populations (Holzman, 1997). Modeled after the progressive philosophy of Dewey, the structure of these schools is loosely constructed. Additionally, the climate is generally less formal while the curriculum is characterized by a wider range of course offerings than traditional schools (Altenbaught, 1999).

Between 1980 and 1995, there was more than a 60% increase in the number of alternative schools. By 1995, there were an estimated 6,000 alternative schools in the United States (Mintz, 1995). The term "alternative" applies to many different types of educational experiences and student populations. Chalker (1996) suggests that the "alternative school is whatever the provider wants it to be . . . making it difficult to define and describe alternative education comprehensively" (p. 6). Others claim that alternative schooling is designed to serve students who cannot succeed in regular public education, who require specialized assistance due to academic failure and disciplinary problems, and who are at risk for dropping out.

The formal public school classroom is not always the best place for students who are at-risk. Frustration and failure are often reinforced among individuals in these settings (Raywid, 1994). Alternative programs have been beneficial to students who require specialized schooling because they are more likely to learn more than they would in traditional schools (Bucci & Reitzammer, 1992).

At-risk youth require an atmosphere that acknowledges their essential and unique needs for safety, trust, and recovery from years of failure (Baker, Bridger, Terry, & Winsor, 1997). There are a variety of reasons for the existence of alternative schools. "Alternative education is a perspective not a procedure or program. It is based upon the belief that there are many ways to become educated, as well as many types of environments and structures within which this may occur" (Morley, 1991, p. 8). "For this reason alone, the structure, organization, and philosophy of alternatives seem worthy of serious examination by educators, educational researchers, and policy makers" (Holzman, 1997, p. 81). To improve our society's chances of reversing the negative impact of school failure, we need to change the way we deliver programs for at-risk youth. The success of alternative education schools is contingent upon educators and social service agency providers working harmoniously and cooperatively in this process (Goodman, 1999).

Alternative schools generally carry a negative connotation. These schools are often regarded as a place for children and adolescents who misbehave and are difficult to teach. Alternative schools are often considered the last chance for students who are on their way to dropping out. However, alternative schools are perceived to be less effective than regular public schools. Typically they have significantly lower standards than regular public education settings focusing on behavior not academics (Kellmayer, 1995). Alternative schools are also linked with inventive learning environments and practices (Raywid, 1994). Posner (1995) supports the role of alternative education and points out that, "Different situations require different practices" (p. 4). While it is recognized that not all alternative schools are for students at risk, for the purpose of this study it will be assumed that alternative schools serve the needs of students who are considered at risk.

Curriculum in Alternative Education

Researchers have reported that students who do not have a sense of belonging in a school feel isolated and are at increased risk of dropping out. This effect is magnified among youth who are not a part of the majority class being served, particularly if it is white (Cookson, 2000; Fine, 1990; Mehan, Hubbard, & Villanueva, 1994; Nieto, 1994).

Students enrolled in alternative school settings often suffer from a dearth of basic skills. Thus, teachers who work with them encounter unique instructional challenges. Students are usually significantly below grade level on one or more of academic achievement standards (Catterall & Moody, 1997). For example, it is not unusual to have adolescents enrolled who can barely read at a primary grade level. Teachers must help these students master basic reading skills yet provide instructional materials that are age appropriate. Students also need counseling to address emotional and behavioral problems, guidance in learning socially appropriate behavior and course work that prepares them for a vocation (Goodman, 1999).

While meeting the needs of at-risk students, teachers face additional pressure to perform. Statewide school improvement initiatives focused on accountability require that teachers ensure students have met curriculum standards, even those that conflict with the learning needs of the student (Hammond, 1994). Thus, it is not uncommon that alternative educational students receive a revised and remedial version of the traditional grade level curriculum. Furthermore, as Pianta and Walsh (1996) have observed, the curriculum does not address underlying academic problems. Alternative schools need to design curriculum that is appropriate for this unique population.

Alternative educational schools that have sustained remain in existence because they have set and met the same goals for academic excellence as their standard public school counterpart (Kronick, 1997). Raywid (1994) suggests that successful alternative schools promote a sense of community with a curriculum that is "...compelling, challenging, and inviting" (p. 29). One of the factors that distinguish alternative education from traditional schools is their emphasis on a learner-centered curriculum, attentiveness to the unique learning needs of the students, and awareness of their social and emotional issues (Kellmayer, 1995).

The academic abilities of students at risk vary widely, particularly among students in the inner city and juvenile justice at-risk programs (Rider-Hankins, 1992). To address the range of their abilities, it is more useful to teach academic skills that have applicability to real world situations rather than abstract problems in a text (Putnam, Malta, & Streagle, 1997). "Students become bored and emotionally separated from education that hold little meaning for them" (Higgs & Tarsey, 1997, p. 128).

Several researchers have explored the type of instructional strategies that benefit alternative educational students. For example, McMillan and Reed (1993) recommended classroom activities that stress achievement while building self-esteem and confidence. They observed that concern for how adolescents were perceived by their peers and family had a greater impact on the decision-making processes than outcome. McMillan and Reed also recommended learning activities that promote a sense of internal self-control, self-efficacy, optimism, and personal pride. For example, they suggested ~~that~~ having students form companies and engage in building a bridge or designing a new cereal box. They reported that such learning experiences promoted acquisition of skills needed to exercise self-control and build self-esteem. In a study of adolescents in alternative school settings, Kennedy and Morton (1999) found that "Because students were immature, they rarely made decisions based on long term outcomes" (p. 56).

Caine (1995), Howard (1992) and Jensen (1998) have suggested using auditory and tactile stimulation to improve instruction and learning. McCombs (1998) recommended using motivational activities that encourage on-task behaviors and heighten interest in learning. He also pointed out that such activities would also augment a sense of well being among individual students.

Characteristics of Teachers and Teaching in Alternative Education

The teacher is charged with the responsibility of developing a curriculum that will ensure student achievement (Glathorn, 1994). However, in these alternative education settings, teachers are concerned about their students' academic progress as well as their social and moral life (Noddings, 1992). "The vigilance required to work with at-risk youth . . . demands constant attention" (Goodman, 1999, p. 92).

Alternative school teachers have a wider responsibility than traditional teaching staff. They are expected to serve as counselors, disciplinarians, cheerleaders, coaches, referees and mentors in addition to teaching language arts, math, science and social studies (Kellmayer, 1995). To function in multiple tasks requires flexibility and an understanding of the specialized instructional needs that students have. Teachers must keep in mind that the majority of students do not usually choose to attend alternative school; "They've been banished there" (Goodman, 1999, p. 87). Thus, developing an understanding of the students' misbehavior is fundamental to student retention (McManus, 1995). To combat disillusionment while working with these students, teachers need to be supportive, maintain a positive attitude, and provide a caring school climate in order for the alternative program to be effective (Bucci & Reitzammer, 1992). "While the importance of the teacher as caregiver cannot be overemphasized, [another] factor often overlooked . . . is the role of caring peers and friends in the school and community environments" (Bernard, 1991, p. 10).

Students learn when they are motivated. Burden and Byrd (1998) learned that no matter what motivation techniques are used in the classroom, students need to feel that they are important and valued as individuals. Students also need to sense that teachers genuinely care about their needs. Motivation for learning is optimal when academic needs are met. Jones and Jones (1998) found that when learners value the goals of the lesson and understand the process in which learning takes place they tend to show greater levels of motivation. Experiencing success, receiving feedback, and having a safe environment also influence student learning. Educators believe when students are interested in the subject being taught, they are likely to be more engaged and more successful learners (Good & Brophy, 2000).

Finding and keeping teachers who are effective with this population is a challenge. Retaining excellent teachers in a setting where there is a high rate of burnout is another problem. (Cookson, 2000; Farber & Asher, 1991; Freedman, 1990). The quality of teacher-student interaction and instructional practice has been correlated with effectiveness. Harris (1998) found that using a variety of materials and activities that are well organized and providing a caring environment correlate with student achievement (1998).

Anecdotal documentation from teachers in the field demonstrates that despite the most aggressive attempts at organization, one must also be prepared for change. Despite the need to follow an organized unit and lesson plan, unexpected civic or school events, changes in classroom schedules, and even a sudden drop in attendance caused by illness or weather can cause disruption in the schedule (Callahan, Clark & Kellough, 1998). Flexibility with structure is an important teacher quality that will help one maintain an organized classroom prepared for student learning (Burden & Byrd, 1998). Teachers should also be able to create an environment that accommodates different ways of learning while promoting cognitive and social skill development (Kennedy & Morton, 1999). However, having an awareness of emotional needs is pivotal to a teacher's ability to create a learning environment which challenges, excites, and encourages the student (Hargreaves,1997).

Researchers have identified the types of skills and subjects that alternative education students need. They have also identified the type of support system that engenders social and psychological well-being at-risk students who attend these schools. However, there is little information available concerning the nature of teachers' instructional practices within the classroom, or their preferences for approaches to teaching. Harris (1998) has suggested that teachers who have "a wide repertoire of teaching models are more effective in the classroom" (p. 38). Joyce and Weil (1996) also claim that using models of teaching promote effective delivery of instruction.

Models of Teaching

Models of teaching are frameworks that guide teachers in developing learning experiences and in providing adequate structure for support learning. Gathered from research in classrooms, teacher input, and training facilities, instructional strategies that share certain characteristics have been classified into families (Gunter, Estes, & Schwab, 1999). The classification of the teaching models include social, information processing, personal, and behavioral families (Joyce and Weil, 1996). A description of teaching model families, research regarding teachers' explicit use of models, and the benefits of using teaching models to teachers and to students follows.

The social model of teaching emphasizes the cooperative relationships that are nurtured in the classroom (see Table 2.1). Student interactions predominate classroom activities that use group investigation, role play, and social inquiry (Joyce, Calhoun & Hopkins, 1997). These approaches promote academic and cognitive growth among students as individuals and as group members as they share other's perspectives (Harris, 1998).

Table 2.1 An Overview of Social Teaching Models

MODEL	PURPOSE
Group Investigation	To reflect upon one's self and one's own values, develop a commitment to improving society, and participate productively in a democracy.
Social Inquiry	To work together to solve social problems, and develop strategies for problem solving.
Jurisprudential Inquiry	To analyze issues of public interest using a legal framework.
Laboratory Method	To develop strong and sensitive social skills while learning how to understand group dynamics.
Role Playing	To learn strategies for resolving conflicts and social problems.
Positive Interdependence	To learn how to relationships work together interdependently and to appreciate the nature of self-others.
Structured Social Inquiry	To learn work together in the pursuit of academic inquiry.

Source: Behar-Horenstein and Ganet Sigel, 1999 (adapted from Joyce and Calhoun, 1996.)[1]

The information-processing group of models of teaching focuses on teaching students different methods for organizing data, developing concepts, and solving problems (Harris, 1998). Whether teachers use this framework as depicted by the concept attainment, advanced organizer, mnemonics, or inductive thinking models, students learn how to process information (Joyce & Weil, 1996; Joyce et al., 1997). Teaching models in this group enable students to construct knowledge by formulating concepts and testing hypotheses while promoting the development of creative thinking techniques (Gunter et al., 1999; Harris, 1998). The information-processing models are shown in Table 2.2.

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[1] Behar-Horenstein has granted permission to adapt and copyright this table.

Table 2.2 An Overview of Information-Processing Teaching Models

MODEL	PURPOSE
Inductive Thinking	To classify information and concepts, build conceptual understanding of disciplines, and learn to build and test hypotheses based on classification.
Concept Attainment	To learn specific concepts and strategies to attain them, gain control over subject matters, build hypotheses and study thinking.
Scientific Inquiry	To acquire scientific process, knowledge bases, and major concepts of specific disciplines. Conceptual thinking, hypothetical reasoning and ability to think critically are developed.
Inquiry Training	To learn how to reason causally, collect data, build concepts, and develop and test hypothesis.
Cognitive Growth	To increase intellectual growth.
Advanced Organizer	To increase ability to synthesize and organize information from multiple sources.
Mnemonics	To develop strategies for mastering new concepts, facts, and ideas.
Synectics	To use analogies to determine creative capacity.

Source: Behar-Horenstein and Ganet Sigel, 1999. (Adapted from Joyce and Calhoun, 1996.) [2]

The personal family of models are used when teachers seek to foster the personal growth of students as a individuals, or an understanding of self and others (see Table 2.3). Non-directive teaching, training in awareness of self and others, and self-actualization are examples of models in this family (Behar-Horenstein & Ganet-Sigel, 1999; Harris, 1998).

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[2] Behar-Horenstein has granted permission to adapt and copyright this table.

The personal family of models focuses on the mental and emotional health of the individual student. The teacher takes on the role of counselor and facilitator. Teaching can also be non-directive and nurturing (Joyce & Weil, 1994).

Table 2.3 An Overview of Personal Teaching Models

MODEL	PURPOSE
Non directive teaching	To build capacity for self-development and create personal awareness.
Awareness Training	To enhance personal growth through self-understanding, increasing empathy, and sensitivity towards others.
Classroom meeting	To increase responsibility to self and others. To increase self-understanding.
Self-Actualization	To develop strong and sensitive social skills while learning how to understand group dynamics.
Role Playing	To increase capacity for personal development and self-understanding.
Conceptual Systems	To increase one's own flexibility in interacting with others and propel individuals to higher levels of conceptual development as the learn to process information.

Source: Behar-Horenstein and Ganet Sigel, 1999 (Adapted from Joyce and Calhoun, 1996.)[3]

The behavioral models of teaching emphasize student mastery, self-correction, behavior, and adaptation (see Table 2.4). These models are based upon the theoretical perspective that humans can learn through feedback and adjustment (Harris, 1998). Instructional approaches that characterize the behavioral models of teaching include using aids to reduce test-taking anxiety, developing social skills and improving negative behaviors that detract from learning (Joyce, Weil & Calhoun, 2000). Mastery learning, direct teaching, programmed learning, and simulation are examples of behavioral models of teaching (Behar-Horenstein & Ganet-Sigel, 1999; Harris, 1998; Joyce & Calhoun, 1996; Joyce & Weil, 1996).

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[3] Behar-Horenstein has granted permission to adapt and copyright this table.

Table 2.4 An Overview of Behavioral Systems Teaching Models

MODEL	PURPOSE
Social Learning	To develop an understanding of one's own behavior and its consequences. To develop more adaptive behaviors in order to attain goals.
Mastery Learning	To master content in all subject areas.
Programmed Learning	To master academic content. To help students monitor their own growth and modify learning strategies.
Simulation	To apply problem-solving concepts and problem-solving skills in situations that approximate realistic conditions.
Direct Teaching	To master academic content, enhance motivation and learn how to pace one's self.
Anxiety Reduction	To learn how to control aversive emotions and avert dysfunctional responses.

Source: Behar-Horenstein and Ganet Sigel, 1999 (Adapted from Joyce and Calhoun, 1996.)[4]

Teachers' Explicit Use of Models

"Good teachers learn from their own study and share that study with their students" (Gunter, et al., 1999, p. 367). In the classroom, the instructional method utilized by the teacher may follow one of the models of teaching. Sometimes the instructor uses a model intentionally; sometimes the models are not used intentionally (Behar-Horenstein &

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[4] Behar-Horenstein has granted permission to adapt and copyright this table.

Ganet-Sigel, 1999). When an instructor intentionally uses a model to achieve a desired student outcome, the teacher demonstrates an explicit use of a model of teaching.

Using models of teaching explicitly has benefits for both the teacher and the learner. The teacher chooses a model based upon the subject matter of the lesson and his/her insight of the best way to present the lesson. Teachers benefit from having a range of models to choose from so that " ...the best possible learning experiences can be selected for each purpose and each group of students" (Behar-Horenstein & Ganet-Sigel, 1999, pp. 76-77). When models of teaching are used explicitly, increased rates of learning, improved educational achievement, and an enhanced capability for learning are seen among the students (Joyce, Weil & Calhoun, 2000).

However, using a specific model during instruction does not ensure successful student outcomes. Research demonstrates that the way a teacher presents a particular lesson does not necessarily guarantee student achievement in all instructional situations (Good, 1996; Sikula, Buttery, & Guyton, 1996). What works in one teaching situation may not work well in another. Teachers must decide what goals to pursue with their students, and select activities that are likely to facilitate the students' accomplishment of those goals. Thus, curriculum and instruction should be matched with the students' learning needs, the desired outcomes, the content, and the teacher's beliefs (Good & Brophy, 2000).

Benefits to teachers. Using models of instruction benefits teachers by helping them build a meaningful and interesting classroom environment. Teachers who knowingly use explicit models are more effective in teaching students how to learn (Jacobsen, Eggen & Kauchak, 1999). Effective professionals purposefully use models of teaching in order to define the process and content of a lesson. Knowing what is to be taught helps teachers thoughtfully plan for instruction which in turn improves the quality of instruction (Joyce, Weil & Calhoun, 2000). Using teaching models offers a systematic process for planning and implementing which reduces off task behavior while engaging students in learning. As student engagement increases, so does academic achievement and outcomes (Jacobsen et al., 1999).

Benefits to students. The primary benefit of using explicit models of teaching is the increase of student learning (Jacobsen et al., 1999; Joyce, Weil & Calhoun, 2000). As student learning increases so does student success. The more successful the students feel, the more motivated they are to continue learning. Learning is influenced by experiences that promote thinking, interest, and student ownership. The use of teaching models can help students become more independent and capable of constructing knowledge. Thus, the use of models of teaching helps students retain information longer and builds self-esteem (Behar-Horenstein & Ganet-Sigel, 1999). Integrating a variety of models in the classroom creates opportunities for students to learn different things in different ways. (Jacobsen et al., 1999).

Teachers' Beliefs

The purpose of this section is to present an overview of research pertaining to teachers' beliefs about teaching by examining the following areas: (a) the difference between belief and knowledge; (b) studies about teachers’ beliefs and their instructional practice; and (c) belief and attitude. The study of people's beliefs and the influence of beliefs on people's actions was initiated by social psychologists in the early 1920's (Thompson, 1992). Unfortunately, according to Thompson, interest in studying people's beliefs all but disappeared during the next 40 years with the rise of the study of behaviorism. Renewed interest in teacher thinking began in the 1970's. During this period, research studies focused on how teachers think, what they believe, and how they make decisions (Clark & Peterson, 1986; Shavelson & Stern, 1981; Shulman & Elstein, 1975). Studies also focused on "...[understanding] teaching from teachers' perspectives [by trying to] understand the beliefs with which they define their work" (Nespor, 1987, p. 323).

Difference Between Belief and Knowledge

"Teacher belief is a particularly provocative form of personal knowledge that is generally defined as pre- or in-service teachers' implicit assumptions about students, learning, classrooms, and the subject matter to be taught" (Kagan, 1992, pp. 65-66). Thompson (1992) observed that although closely connected, there is a difference between the term "belief" and the term "knowledge." Yet in many cases, teachers treat their beliefs as knowledge. Beliefs and knowledge are distinguishable in a number of ways.

First, a belief is something that one holds on to, but with a variety of degrees. However, not all teachers share the same beliefs. In a given education environment, no two teachers may have the same beliefs, or several may have closely related beliefs. Beliefs do not have to pass a test of validity. While beliefs can be disputed, knowledge is associated with certainty. Knowledge can be measured and is associated with truth (Thompson, 1992).

Belief and Instructional Practice

"All teachers hold beliefs, however defined and labeled, about their work, their students, their subject matter, and their roles and responsibilities..." (Parajes, 1992, p. 314). However, "teacher belief" is not used the same from study to study. When Kagan

(1992) reviewed the literature, she discovered that "belief" is used to mean "principles and practice," "personal epistemology," "perspective," "practical knowledge," or "orientation" (p. 66).

Despite the varied ways in which teacher belief has been defined, studies have shown some consistent findings. First, teacher belief seems to be resistant to change, and second, teachers' "...beliefs tend to be associated with a congruent style of teaching that is often evident across different classes and grade levels" (Kagan, 1992, p. 65). In addition, researchers have identified that teacher belief can be reflected in type and nature of instruction provided in the classroom. For example, as Behar-Horenstein, Parajes, and George (1996) demonstrated, teachers' beliefs influence instructional practice and are an important part of the success of delivering curriculum in the classroom.

Glickman, Gordon and Ross-Gordon identified successful teachers as thoughtful (1998). Thoughtful teachers reflect on their practices in the classroom and form beliefs about teaching. Based on these beliefs, teachers make decisions about what transpires in their classrooms. Teachers make decisions about what instructional activities and strategies they use to achieve the objectives of the lesson. How to organize a lesson, motivate students, and handle student needs are also part of the decision-making process. Identifying what teachers believe about teaching can be discerned by understanding the teachers' objectives for presenting a particular lesson and observing how they help students acquire knowledge and contract meaning (Burden & Byrd, 1998).

The beliefs and vision that a teacher brings to the classroom are among some of the factors that influence effectiveness in improving student achievement. What a teacher believes about his or her ability to teach will influence the choice of activities in the classroom as well as a commitment to teaching (Ross, 1994). Teachers who believe that they are effective are more likely to use a variety of instructional strategies. A variety of instructional strategies holds the interest of the at-risk student population in alternative schools (Harris, 1998).

Belief and Attitude

Studies have shown that what a teacher believes will impact interactions with students (Ashton & Webb, 1986). In other words, what teachers believe can become a part of their attitude. "Attitudes are hypothetical or unobservable constructs that are inferred to exist through responses an individual makes to an object" (Kottkamp, 1990, p. 87). Responses to an object can take on several forms. Cognitive responses are known as beliefs; affective responses are known as feelings; and connotative responses are known as intentions (Ajzen, 1984; Kottkamp, 1990;).

When a teacher is asked to choose between working with a classroom of at-risk students or a gifted classroom, the response might be enthusiastic toward the at-risk students. This choice is a response to an object, the student. The teacher would be said to have a positive attitude toward working with at-risk students. The choice of students is based upon a belief. "Beliefs are subjective knowledge, and each one links the object of an attitude with positively or negatively valued attributes" (Kottkamp, 1990, p. 87).

Teachers have attitudes about types of students, and about what and how subject matter should be taught in the classroom. One teacher may have the attitude that the ideal goal of education is to help students develop a desire to make inquiry while another may have an attitude that the ideal goal is to help students develop the skills integral to problem solving (Kottkamp, 1990). Teachers' beliefs are the result of cognitive responses to objects known as attitudes. Attitudes of teachers are manifested by their preferences. Preferences of a teacher for one type of an instructional strategy over another are based upon the beliefs held by the teacher. Therefore, the instructional practices delivered in the classroom can be said to be a result of what teachers believe.

Summary

This chapter presents a review of the literature concerning alternative education, teaching models, and teachers' beliefs. The alternative school setting presents unique instructional challenges since teachers usually work with the most resistant learners. Students enrolled in alternative programs often suffer from a lack of basic skills as well as an abundance of psychological and sociological problems.

While the need for alternative education programs is understood, there are varied opinions about how these programs should be organized and how these schools can best serve their students. Over the past 10 years, researchers have tried to identify what factors result in successful alternative program and what factors cause failure. Yet, there is little research regarding instructional practice, the degree to which models of teaching are used, and whether beliefs about teaching coincide with actual instruction.

Models of teaching can be used to guide the instructional process, promote cognitive and social/emotional development of students, facilitate the nature of teacher-student interaction, and determine the structure of the learning environment. Because the use of teaching models has benefits for both the teacher and the learner, it is important to identify how models may be used in programs such as alternative education. Understanding how teachers' beliefs influence teaching has implications for identifying factors that contribute to or thwart successful outcomes.

CHAPTER 3
METHODS

The purpose of this chapter is to describe the methods and procedures used in this study. A discussion of the setting and the participants, instrumentation, data collection and data analysis is present. The chapter ends with a discussion of researcher bias and trustworthiness.

The Setting and the Participants

This study was conducted at Oceanview[5] school an alternative educational setting. Oceanview School is a day school treatment program that offers comprehensive prevention, early intervention, and high school education to adolescent girls who are ages 12-18 years. Students who attend this school are considered at risk of delinquency. An executive director, administrative assistant, program manager, social services manager/clinician, teacher advisers, and social workers are employed at this site.

Oceanview School was started by five community volunteers dedicated to making changes in the juvenile justice system. The school opened in 1985 to serve as an alternative to institutionalization or incarceration for delinquent girls. At its inception, the organization had $100 in a bank account and a borrowed room in a large city church. At the time of the study, there were 24 Oceanview Schools throughout a southeastern United States location that served over 1,820 students. The program is funded by the State Departments of Juvenile Justice and Education. Additional resources are provided by private donors and tuition dollars allocated to the public school districts in which the students are zoned. Each school offers a fully accredited high school program. Students who attend Oceanview can receive a regular diploma per a cooperative agreement with the local board of education, the State Department of Education, and the school.

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[5] Oceanview is a pseudonym for the actual name of the school.

One of the goals of the Oceanview program is to improve the lives of girls who are at risk of delinquency by enabling them to further their education and become productive citizens. The central mission of the school is to use specialized educational approaches to help students develop self-esteem, envision a positive future for themselves, overcome life challenges such as family dysfunction, and acquire the cognitive skills that are essential to a productive adult life.

The majority of Oceanview program staff members are female, although this site employs one male. The demographics of staff members at each Oceanview program mirror the racial/ethnic composition of the community. Newly hired staff members spend at least two weeks in training, often in the form of job shadowing. During their first year of employment staff are required to complete 120 hours of training. Monthly in-service training focuses on issues of adolescent girls. The program consists of training modules such as crisis prevention, ethics, mental health and substance abuse counseling, multi-cultural diversity and career supervision.

Girls are admitted to the Oceanview program through referral. Students can be sent to the school by family members, teachers, or the juvenile court system. To be eligible for enrollment, students must be 13 to 15 years of age and considered at risk of dropping out of school. Typically, Oceanview students have been retained, perform below grade level, or have been expelled. The student population of the school in this study is comprised of 75% who lived at the poverty level; 45% who were from single-parent homes; 61% who had committed offenses such as truancy, petty theft, possession of controlled substances, and absconding from home. Most of the girls have been physically or sexually abused and have abused drugs or alcohol. Almost all of the students have a history of delinquency.

Upon admission into the program, a student undergoes a needs assessment and an in-home visitation. Subsequently individualized educational and therapeutic treatment plans are developed for each student. Home visits are scheduled monthly, and families are encouraged to participate in the client's treatment. Each student is assigned a primary advisor who is on-call 24 hours a day. Each teacher is required to give a weekly report on the student's academic and social/emotional progress to the student, parent, and guidance counselor. Teachers in the program are also expected to document students' behavior during each class by completing point cards for each girl, act as an advocate for five students, and attend action committees. Action committees, comprised of administrators, teachers, office and counseling staff, community members, parents, and sometimes students, work to formulate both short term and long term strategic plans that shape policy and focus upon the growth of the program. Teachers are invited to participate and are considered to be an integral part of creating and supporting policy and procedures.

Oceanview School students attend classes six hours a day for four to five days each week. In addition, they participate in counseling, group therapy, and community service projects. The educational program is comprised of a curriculum, known as SMART! (Students Making A Right Turn); it consists of six academic modules that are designed to encourage positive life choices. Learning activities focus on helping students learn why it is important to use correct language and to appreciate cultural differences. Students study career awareness and draft a budget plan that will aid them in independent living. Learning experiences are designed to help girls consider how to make healthy choices regarding sexual activity, nutrition, drugs, and alcohol. A portion of the curriculum focuses on violence prevention where students learn strategies that promote peaceful resolution. Finally, students are expected to eventually serve as peer counselors, and teach others in their school and in their local community about healthy choices. Overall, the focus of the curriculum is to ensure that students develop self-esteem, acquire adaptive decision-making skills, and build positive relationships.

At Oceanview, students also use the computer laboratory on a regular basis. Programmed learning modules are used to build and reinforce math and reading skills. Students are expected to complete units and demonstrate mastery. Successful completion of the program culminates in receiving a high school diploma or returning to traditional school. After completing the program, students may receive transitional services for up to three years.

Instructional and therapeutic programs at alternative schools tend to be very behavioral; Oceanview is no exception. One of the school's goals is to teach the students new behaviors that will lead to successful learning and the development of appropriate socialization skills. Behavior in class, in the halls between classes and during extracurricular activities after school is documented on a hourly, daily, weekly and monthly basis. Rewards for positive behaviors include earning trips to the "Clothes Closet" and the "Crazy Cart" so that students can select new clothing, personal items, and school supplies that have been donated to the program from local merchants. Students can earn days off and field trips to entertainment parks as well. Negative behaviors are addressed by providing additional counseling sessions, establishing behavior contracts, and dismissing students from the program.

Instrumentation

Instruments used in this research project included: Teacher Demographic Questionnaire (Appendix A); Teacher Behavior Preferences Survey; Teacher Interview Protocol (Appendix B); and Teacher Observation Protocol (Appendix C).

Teacher Demographic Questionnaire

The Teacher Demographic Questionnaire (see Appendix A), a researcher-constructed instrument, was used to gather information about the participants' educational background, race/ethnicity, gender and teaching experience. Among the eight participating teachers, seven hold a bachelor's and one has a master's degree. Half of the teacher's were white and half were black. All of the teachers were female. Two of the participants had one year of teaching experience; three had 2 to 5 years of experience. Two of the participants had taught for 6 to 8 years while one individual had over 20 years of teaching experience.

Teacher Behaviors Preferences Survey

The Teacher Behaviors Preferences Survey (TBPS) is a two-part instrument developed by Anusavice and Behar-Horenstein (2001). Part I of the TBPS consists of 30 items within two major domains, teacher-centered (TC) and student-centered (SC) instructional practices. TC instruction is comprised by traditional instructional practices that are based upon the teachers' instructional preferences rather than the students' learning needs/styles. This type of instruction is considered effective for short-term recall of facts and more efficient for covering large amounts of information. TC practices are derived from research on teaching effectiveness behaviors (Emmer, Evertson, & Brophy, 1979; Good and Brophy, 1986; Porter & Brophy, 1988; Rosenshine & Furst, 1971). TC practices are grounded in the belief that the teacher is the subject-matter expert whereas students are passive learners who need only learn what to think.

Student-centered refers to instruction that corresponds primarily to students' learning needs/styles. This practice involves constructivist teaching and concentrates on enabling students to think about complex issues. SC instruction is effective instruction where the focus is on comprehension, long term recall, problem solving ability, and developing subsequent interest in the subject. These practices represent contemporary thought on the type of instructional practices that promote student ownership for their learning, active learning, and learning how to think, not what to think.

Respondents are asked to rate each item and indicate their level of agreement using a Likert-type scale from 1 to 5, where [5] = highly agree and [1]=highly disagree. The scoring helps determine if participants report a preference for either teacher or student-centered instructional practices and provides a numerical measure of the individual's preference for instructional practices related to instructional methods, grouping, assessment, questioning, guided practice, use of classroom time, classroom milieu, student feedback, and communication. Scores for each of the items and subscales were totaled to determine if there was a significant difference between the teachers in their preference for teacher-centered or student-centered instructional practice.

Previously, the Teaching Behavior Preference Survey was administered to 60 educators including graduate students and university professors in dental hygiene and dentistry. Analysis of this data set demonstrated an alpha coefficient of $p \leq .001$. The scores for teacher-centered items ranged from 26 to 54. The total scores for student-centered items ranged from 35 to 69. The mean score for teacher-centered items was 39.550, compared to a mean of 60.117 for student-centered items, demonstrating the participants reported a preference for student-centered instructional practices that was significantly different. The mean difference between and student-centered total scores was 20.567. To ensure the reliability of the Teaching Behavior Preference Survey for this study, the researcher pilot tested Part I with alternative education teachers (N=14) who did not participate in the actual study.

The results of the pilot study demonstrated that there was a significant difference among the alternative education teachers in their preferences for teacher-centered and student-centered instructional practices. The participants reported a preference for student-centered instructional practices which was significant at the $p \leq .001$ level. The range of scores for teacher-centered items was 27 to 47. The range of scores for student-centered items was 47 to 67. The mean score for teacher-centered items was 39.214. The mean score for student-centered items was 56.786. Table 3.1 shows the pilot test results for Part I of the TBPS.

Table 3.1 Pilot Test of Teachers' (N=14) Preferences for Teacher- and Student-Centered Instructional Practice

Pair	Mean Difference	SD	t	df	Sig. (2-tail)
Teacher Center/Student Center	25.071	7.065	13.278	13	.000*

$^*p \leq .01$

The results of the pilot survey for Part I of the TBPS are shown in Table 3.2. In this table, the mean, mean differences, t-score, and level of significance for individual paired teacher and student-centered items is provided. Each teacher- and student-centered item on Part I of the survey is linked with a complementary item. For example, item one (a teacher-centered practice), "My teaching is guided by instructional strategies that emphasize what students should know" is paired with item 17 (a student-centered practice), "My teaching is guided by instructional strategies that help students make meaning." The paired samples T-test provides a measure of reliability and is used to identify pairs of items with significant differences. As shown in Table 3.3, there was a significant difference among the participants in their preference for student-centered practices in 8 of the 15 pairs. Among the remaining paired items, there was no significant difference among the teachers in their preference for either teacher or student-centered practices.

Table 3.2 Pilot Test Teachers' Preferences for Teacher- and Student-Centered Instructional Practices by Items (N=14).

Pr		**Item**	**Mean** Diff	**SD**	**t**	**Sig.** (2-tail)
1	T	1.My teaching is guided by instructional strategies that emphasize what students should know. Mean = 4.143	.143	1.351	.396	.699
	S	17. My teaching is guided by instructional strategies that help students make meaning. Mean = 4.000				
2	T	20. My classroom environment encourages students to work quietly and stay on task. Mean = 3.714	.143	1.099	.486	.635
	S	2 My classroom environment encourages students to be actively involved in their learning and take ownership for their learning. Mean = 3.857				

*p =≤.01

Pr = Pair T= Teacher-centered S= Student-centered

Table 3.2 Continued

Pr		Item	Mean Diff	SD	t	Sig. (2-tail)
3	T	10. I use the same teaching techniques for every student in my class. Mean =1.357.	2.786	1.188	8.771	.000*
	S	3. I adjust my teaching techniques based on individual student performance. Mean = 4.143				
4	T	14. My assessment techniques are not influenced by the material I teach. Mean = 2.071	1.929	1.207	5.980	.000*
	S	4 .My assessment techniques are selected on the basis of the material I teach. Mean = 4.000				
5	T	5. I use the same assessment techniques for each objective of the lesson. Mean = 2.000	1.571	1.604	3.667	.003*
	S	30. I change assessment techniques according to the lesson objectives. Mean = 3.571				
6	T	6. I teach idiosyncratically, using the techniques I enjoy. Mean = 2.929	.571	1.158	1.847	.088
	S	25. I match my techniques to instructional objectives. Mean = 3.500				
7	T	7. I acknowledge only what students ask or tell me. Mean = 1.714	2.214	1.122	7.386	.000*
	S	13. I acknowledge students' verbal communication, body language, and facial expressions. Mean = 3.929				
8	T	28. I ask students questions infrequently because I believe they can synthesize material. Mean = 1.571	2.786	1.369	7.615	.000*
	S	8. I ask students questions frequently to determine what they understand. Mean = 4.357				

*p =≤.01

Pr = Pair T= Teacher-centered S= Student-centered

Table 3.2 Continued

Pr		**Item**	**Mean** Diff	**SD**	**t**	**Sig.** (2-tail)
9	T	9. When I ask students questions, their responses typically require a short, factual answer. Mean = 2.786	.571	1.453	1.472	.165
	S	21. When I ask students questions, their answers typically require them to provide a justification. Mean = 3.357				
10	T	11. I use the same teaching techniques for all students, regardless of students' behavior. Mean = 1.643	1.857	1.351	5.145	.000*
	S	27. I adjust my teaching techniques based on students' behavior. Mean = 3.500				
11	T	12. My classroom environment is efficient and highly structured. Mean = 3.143	.929	.917	3.789	.002*
	S	19. My classroom environment is supportive and cooperative. Mean = 4.071				
12	T	18. I use the same teaching techniques for the whole group, regardless of the individual student. Mean = 1.714	2.071	1.492	5.196	.000*
	S	15. I adjust my teaching techniques to individual students' level of understanding, regardless of the whole group. Mean = 3.786				
13	T	22. I provide feedback on student performance through graded assignments. M= 3.857	7.143	.997	.268	.793
	S	16. I provide feedback through non-graded student practice followed by graded assignments. Mean = 3.929				
14	T	23. In my course I help students learn to master the subject matter. Mean = 3.643	.214	.975	.822	.426
	S	26. In my course I help students learn how to learn. Mean = 3.857				

*p =≤.01

Pr = Pair T= Teacher-centered S= Student-centered

Table 3.2 Continued

Pr		Item	Mean Diff	SD	t	Sig. (2-tail)
15	T	24. I believe that my expectations for student outcomes are implicit. Mean = 3.357	.214	1.188	.675	.512
	S	29. I explicitly state my expectations for student outcomes. Mean = 3.143				

*p =≤.01

Pr = Pair T= Teacher-centered S= Student-centered

Part Two of the TBPS is comprised of 42 statements that describe practices which are characteristic of the families of teaching models. Respondents were asked to place a mark in front of the items that best described their teaching practices. The magnitude of the teacher's preference for a family of teaching models (information-processing, social, personal, and behavioral) was calculated by counting the number of items selected for each family divided by the total number of items within each family.

The higher the percentage of items selected within a family, the greater the participant's preference for a given family of teaching models. For example, the behavioral family of models consists of nine items. If the participant selected three of these items, then it was determined that there was a 33 % probability that the teacher showed a preference for the behavioral family of models. If the teacher selected 8 of 9 items in the social family of models, it was determined that there was an 89 % probability that the teacher preferred the social family of models. The family of models with the highest percentages indicated the teacher's primary preference (see Table 3.3).

The results from Part Two of the TBPS indicate that, overall participants in the pilot study preferred the personal family of models (88%). The personal family of models focuses on the mental and emotional health of the individual student. The teacher takes on the role of counselor and facilitator. Teaching can also be non-directive and nurturing (Joyce & Weil, 1994). This category had the least number of items; only three were reflective of the Personal Family of models. As shown in Table 3.3, 10 of 14 teachers selected all three items.

Table 3.3 Pilot Test Teachers' (N=14) Preference for Families of Teaching Models by Rank Order and Percentage of Items

Respondent #	Information Processing	Social	Behavioral	Personal
1	4 (11%)	3 (22%)	1 (89 %)	2 (33%)
2	4 (28%)	3 (56%)	3 (56%)	1 (67%)
3	4 (56%)	3 (78%)	2 (89%)	1 (100%)
4	4 (94%)	3 (100%)	3 (100%)	3 (100%)
5	4 (50%)	3 (67%)	2 (78%)	1 (100%)
6	2 (78%)	4 (67%)	2 (78%)	4 (67%)
7	4 (50%)	3 (56%)	2 (67%)	1 (100%)
8	4 (72%)	3 (78%)	2 (100%)	2 (100%)
9	4 (44%)	2 (56%)	4 (44%)	1 (100%)
10	2 (61%)	4 (56%)	4 (56%)	1 (100%)
11	2 (61%)	4 (33%)	3 (56%)	1 (67%)
12	4 (94%)	3 (100%)	3 (100%)	3 (100%)
13	3 (83%)	2 (89%)	4 (67%)	1 (100%)
14	4 (56%)	3 (78%)	3 (78%)	1 (100%)
Total	4 (60%)	3 (67%)	2 (76%)	1 (88%)

Teachers reported that the behavioral family (76%) was their second preference. The behavioral family of models, exemplified in part by the use of direct teaching and mastery learning, is based upon the theory that humans can learn through feedback and adjustment (Joyce & Weil, 1994). This category was comprised of nine items. Only 3 of the 14 teachers in the pilot study selected all nine items.

The social family of models (67%) ranked third. This family of models focuses on nurturing collaborative relationships in which students learn through group investigations, role playing and social inquiry (Joyce, Calhoun & Hopkins, 1997). This category included nine items. Two of the 14 teachers surveyed selected all nine items.

The least preferred family of models was information-processing (60%). Teaching models in this group support the construction of knowledge through concept formation and hypotheses testing while further developing creative thinking techniques (Gunter et al., 1999; Harris, 1998). This family of models had 21 items. None of the participants in the pilot selected all 21 items.

Teacher Interview Protocol

The Teacher Interview Protocol (see Appendix B), developed by the researcher, is based on instructional frameworks discussed by Joyce and Weil (1996). Interview questions were used to establish the teachers' beliefs regarding their instructional practices, classroom activities, and organization as they relate to the family of teaching models and to discover individual teacher's preferences for specific models of teaching. The interviews were audio-taped and transcribed.

Teacher Observation Protocol

The Teacher Observation Protocol (see Appendix C), adapted from Anusavice (1999), was used to document observed instructional practice. The researcher observed five, 50-minute classes taught by 7 of 8 teachers throughout a nine-week grading period. One participant was observed only once during a 50-minute classroom period. The following observation protocol was used.

1. Sequentially describe the tasks that students are asked to do.
2. Describe student and teacher roles and their respective involvement in the lesson.
3. Describe the teacher's response to students' questions and answers.
4. Identify and describe how instructional supports are used throughout the lesson.
5. Diagram the classroom arrangement.

Observable teacher behavior was documented by written field notes, audio tape recordings, and a compilation of artifacts. Written transcripts were developed from the data collected in the audio tape recording to supplement running field notes and artifacts, to give a complete and accurate account of the lesson presented. Artifacts included seating charts, overhead lecture guides, student hand-outs, copies of readings and assignments completed from text books, and testing materials developed by the teachers and by the accompanying text books. Thus, both visual and auditory documentation of the teacher's behavior while presenting the lesson were recorded. QSR NUD*IST (2002) was used to assist the researcher in the analysis of data. This software package was chosen because of its reputation for helping to maintain the sensitivity to detail and context while aiding in the exploration of themes and testing of patterns with care and rigor.

Data Collection

The sample for this study included eight teachers who worked with 80 Oceanview School students. Participants were a purposive sample of teachers who expressed an interest in being included in this study to the program director and the researcher. A request was solicited for staff's participation in the study during a regularly scheduled meeting with the program director. Informed consent was obtained before data collection or observation were conducted (Appendix D). Approval for this study was granted by the University of Florida Institutional Review Board (see Appendix E).

Participants in this study were asked to complete the Teacher Demographic Questionnaire (Appendix A), and the TBPS. Each participant was interviewed using the Teacher Interview Protocol (Appendix B). Each interview lasted approximately 45 minutes for a total of 360 minutes of teacher interview time. Next, the researcher used the Teacher Observation Protocol (Appendix C) to document teachers' observed behavior during classroom instruction. Artifacts such as classroom layout, placement of students, lesson plans, texts and other instructional materials were also obtained. Data sources were comprised from observations of what is said, how people acted, and the items or artifacts that are used (Creswell, 1997; Spradley, 1979; Wolcott, 1987). The data sources were used to establish a thick and rich description of the participants' beliefs and practices, the setting, and to provide validity through corroborating evidence from varied and multiple sources (Creswell, 1997). The researcher participated in this study as an observer (Creswell, 1998; Spradley, 1979). The researcher observed a total of 36 classroom periods that were 50 minutes or longer. Over 1800 minutes of classroom instruction was observed. Both interviews and classroom observations were audio-taped and transcribed by the researcher. Over 9000 minutes (150 hours) were spent listening, transcribing, and analyzing the data.

Data Analysis

The experiences of the teachers in an alternative school were explored using qualitative research methodology (Creswell, 1998). The data were interpreted at the three levels of description, analysis and interpretation as recommended by Wolcott (1994). A description of the program, school and teachers in the classroom was given. Transcripts of teachers' instructional practices were analyzed to determine if teachers used particular types of models of teaching during observed classroom instruction (Joyce, Weil & Calhoun, 2000). The researcher analyzed the data from the theoretical viewpoint of a constructivist. That is, the belief that the purpose of educating students is to enable learners to construct knowledge and that the learning environment will be structured in ways that enable learners to build knowledge (Brooks & Brooks, 1993). Observations of classroom instruction were documented using running notes (Joyce, Weil & Calhoun, 2000). The observations were transcribed by the researcher and audio taped to ensure accuracy. Transcripts with artifacts (texts, classroom lay out, assigned student work) were analyzed to provide a description that depicted each teaching instance.

The qualitative information gathered from each teaching instance was gathered and coded creating a picture of the teacher behavior. Working inductively, the researcher developed categories from informants and grouped the themes into broader more abstract categories. Next, each instance per teacher was gathered to form a set that aided in understanding the teacher behavior as a collection of teaching events. Five total events for each of seven participants were developed while there was only one event for the eighth teacher.

The initial domains used in this investigation included student activities, teacher activities, questions by students, questions by teachers, grouping in classroom, personal comments, housekeeping, directions, praise, and discipline to name a few. As the domains were compared and revised, broader categories evolved such as teacher role, teacher activities, student activities, class arrangement, teacher responses, and instructional supports.

Researcher Bias and Trustworthiness

The primary instrument for data collection and documentation in qualitative fieldwork is the researcher. Qualitative data collection included interviews and observations conducted by the researcher and required a great amount of direct contact with the participants. Thus, in order to obtain objective reporting and analysis of data, self-monitoring for personal bias was necessary to maintain an objective framework from which to report the data. (Cresswell, 1998; Patton, 1980). Acting as the primary instrument. The researcher must consider his/her limitations due to knowledge, skill, and understanding of data collection and analysis as well as the researcher's background that might contribute to bias (Cresswell, 1998).

The researcher worked in an alternative education setting as a teacher for four years and as an educational supervisor for three years. These experiences which shaped her interpretation could potentially a present source of bias (Creswell, 1998). In addition, the researcher has acquired experience in data collection through interview, observation and survey while working as a research assistant on several university-based national projects in the Northwest. Additional experience in conducting interviews and doing observations was acquired while conducting an evaluation study performed under the guidance of an experienced professor. The researcher also enrolled in two courses specifically geared to train the student in qualitative research techniques. Finally, the researcher is currently involved in a national grant and two national clinical trials as part of her position as an employee of a private, non-profit corporation.

A key issue for the qualitative researcher is the ability to develop a shared understanding for the purpose of establishing trustworthiness. Trustworthiness ensures credibility, transferability, dependability, and confirmability of the study findings. In other words, trustworthiness helps to verify internal and external validity as well as reliability and objectivity. The researcher established trustworthiness in gathering qualitative data through experience as a participant observer in a previous study when she investigated four different alternative education teacher's practices in the classroom. In addition, the researcher gained skill using qualitative methodology while participating in a study of communication styles among pediatric unit staff members in a local hospital.

In order to protect against researcher bias and ensure trustworthiness, triangulation, persistent observation, and external audits were used in this study. Data collection and analysis followed operational construct sampling as defined by Patton (1990). The construct in this study was the teachers' preferences for models of teaching in an alternative school.

First, similarity of persistent observations over a period of time and comparing data through alternate forms of data collection helped to establish validity (Kirk & Miller, 1986). Next, data triangulation was used for reliability and validity. Data sources compared for accuracy included teacher survey, interview, and observation, as well as student work assignments (Patton, 1990). By comparing these sources, a teacher's preference for a certain model of teaching was verified with accuracy. Finally, reliability was established and validity assured through an external dependability audit in which another graduate student reviewed the data to determine whether or not the findings and interpretations were supported by the data (Creswell, 1998).

CHAPTER 4
RESULTS

The purpose of this study was to investigate the correspondence between teachers' beliefs about their instructional practice and preferences for a family specific model of teaching with their actual instructional practices. The purpose of this chapter is to present the findings related to each research question.

Research Question 1: What Are Alternative Education Teachers' Beliefs About Their Instructional Practice?

As shown in Part One of the Teaching Behavior Preferences Survey (TBPS) (Anusavice & Behar-Horenstein, 2000), teachers reported that overall, they preferred a student-centered approach to instruction. As shown in Table 4.1, the overall t score for the 15 paired items was significant (.000) at the $p \leq .01$ level.

Table 4.1 Teachers' (N=8) Preference for Teacher- and Student-Centered Instructional Practices.

Pair	Mean Difference	SD	t	df	Sig. (2-tail)
Teacher-centered/ Student-centered	23.875	9.234	7.313	7	.000*

$*p \leq .001$

The paired items, the mean score for each item, the mean difference between items in each pair, the t-score and the 2-tail level of significance for each pair are shown in Table 4.2. The test for significance was less than or equal to the .05 level. The participants in this study reported a significant preference for student-centered practices across six pairs of items. For example, in pair # 3, the teachers reported a significantly different preference for using teaching techniques based on individual student performance (a student-centered practice) rather than using the same technique for every student in the class (a teacher-centered practice). This difference (.026) was significant at the $p \leq .05$ level. As shown in pair # 4, the participants reported a significantly different preference for using assessment techniques based upon the material being taught (a student-centered practice) rather than not influenced by the material being taught (a teacher-centered practice). This difference (.007) was significant at the $p \leq .05$ level.

As shown in pair #7, teachers reported a significantly different preference for acknowledging students' verbal communication, body language, and facial expressions (a student-centered practice) rather than acknowledging only what students ask or tell the teacher (a teacher-centered practice). This difference (.000) was significant at the $p \leq .05$ level. As shown in pair #8, teachers reported a significantly different preference for questioning students frequently (a student-centered practice) rather than infrequently to determine what they understood and assuming that students could synthesize the material on their own (a teacher-centered practice). This difference (.000) was significant at the $p \leq .05$ level.

The teachers indicated a significantly different preference in pair #10, to adjust for their teaching techniques based upon student behavior (a student-centered practice) rather than to use the same techniques for all students regardless of behavior (a teacher-centered practice). This difference (.038) was significant at the $p \leq .05$ level. In pair #11, respondents demonstrated a significantly different preference for a supportive, cooperative environment (a student centered-practice) rather than an efficient and highly structured environment (a teacher-centered practice). This difference (.018) was significant at the p≤.05 level.

Table 4.2 Teachers' (N=8) Preferences for Teacher- and Student-Centered Practices.

Pr		**Item**	**Mean** Diff	**SD**	**T**	**Sig.** (2-tail)
1	T	1.My teaching is guided by instructional strategies that emphasize what students should know. **Mean** = 4.125	.250	1.035	.683	.516
	S	17. My teaching is guided by instructional strategies that help students make meaning. **Mean** = 3.875				
2	T	20. My classroom environment encourages students to work quietly and stay on task. **Mean** = 3.625	.875	1.126	2.198	.064
	S	2 My classroom environment encourages students to be actively involved in their learning and take ownership for their learning. **Mean** = 4.500				
3	T	10. I use the same teaching techniques for every student in my class. **Mean** =2.250.	1.75	1.753	2.824	.026*
	S	3. I adjust my teaching techniques based on individual student performance. **Mean** = 4.000				
4	T	14. My assessment techniques are not influenced by the material I teach. **Mean** = 1.875	2.375	1.768	3.800	.007*
	S	4 .My assessment techniques are selected on the basis of the material I teach. **Mean** = 4.250				

*p=<.05

Pr = Pair T= Teacher-centered S= Student-centered

Table 4.2 Continued

Pr		Item	Mean Diff	SD	T	Sig. (2-tail)
5	T	5. I use the same assessment techniques for each objective of the lesson. **Mean** = 2.625	1.125	1.726	1.843	.108
	S	30. I change assessment techniques according to the lesson objectives. **Mean** = 3.750				
6	T	6. I teach idiosyncratically, using the techniques I enjoy. **Mean** = 3.375	.000	1.512	.000	1.00
	S	25. I match my techniques to instructional objectives. **Mean** = 3.375				
7	T	7. I acknowledge only what students ask or tell me. **Mean** = 1.500	3.375	.744	12.83	.000*
	S	13. I acknowledge students' verbal communication, body language, and facial expressions. **Mean** = 4.875				
8	T	28. I ask students questions infrequently because I believe they can synthesize material. **Mean** = 1.750	2.500	1.069	6.614	.000*
	S	8. I ask students questions frequently to determine what they understand. **Mean** = 4.250				
9	T	9. When I ask students questions, their responses typically require a short, factual answer. **Mean** = 3.125	.250	2.188	.323	.765
	S	21. When I ask students questions, their answers typically require them to provide a justification. **Mean** = 3.375				

*p=<.05

Pr = Pair   T= Teacher-centered   S= Student-centered

Table 4.2 Continued

Pr		**Item**	**Mean** Diff	**SD**	**T**	**Sig.** (2-tail)
10	T	11. I use the same teaching techniques for all students, regardless of students' behavior. **Mean** = 2.125	1.125	1.246	2.553	.038*
	S	27. I adjust my teaching techniques based on students' behavior. **Mean** = 3.250				
11	T	12. My classroom environment is efficient and highly structured. **Mean** = 3.625	1.000	.926	3.055	.018*
	S	19. My classroom environment is supportive and cooperative. **Mean** = 4.625				
12	T	18. I use the same teaching techniques for the whole group, regardless of the individual student. **Mean** = 2.625	1.250	1.753	2.017	.083
	S	15. I adjust my teaching techniques to individual students' level of understanding, regardless of the whole group. **Mean** = 3.875				
13	T	22. I provide feedback on student performance through graded assignments. **Mean**= 3.875	.375	1.303	.814	.442
	S	16. I provide feedback through non-graded student practice followed by graded assignments. **Mean** = 4.250				
14	T	23. In my course I help students learn to master the subject matter. **Mean** = 4.000	.250	.886	.798	.451
	S	26. In my course I help students learn how to learn. **Mean** = 4.250				

*p=<.05

Pr = Pair T= Teacher-centered S= Student-centered

Table 4.2 Continued

Pr		**Item**	**Mean** Diff	**SD**	**T**	**Sig.** (2-tail)
15	T	24. I believe that my expectations for student outcomes are implicit. **Mean** = 3.750	.125	2.031	.174	.867
	S	29. I explicitly state my expectations for student outcomes. **Mean** = 3.875				

*p=<.05

Pr = Pair T= Teacher-centered S= Student-centered

There were no significant differences in teacher's reported practices on nine paired items that were representative of the following:

- using instructional strategies that emphasize what students should know or help students make meaning (pair 1);
- creating a classroom environment which encourages students to work quietly and stay on task or actively involved in their learning and taking ownership for their learning (pair 2);
- using the same assessment techniques for each objective of the lesson or changing assessment techniques according to the lesson objectives (pair 5);
- teaching idiosyncratically using techniques the teacher enjoys or matching techniques to the instructional objectives (pair 6);
- asking questions that require short factual answers or a justification (pair 9);
- using the same teaching techniques for the whole group or adjusting teaching techniques to individual students' level of understanding (pair 10);
- providing feedback on student performance through graded assignments or through non-graded student practice followed by graded assignments (pair 13);

- helping students learn to master the subject matter or how to learn (pair 14);
- believing that expectations for student outcomes are implicit or explicitly stating expectations for student outcomes (pair 15).

Research Question 2: Do Teachers Report a Preference for a Family of Models and Specific Models of Teaching?

Survey Results

Teachers' preferences for the families of models are shown in rank order and by the percentage of items selected in Table 4.3. Overall, teachers reported preference for the personal family of models (88%), followed by the social family (75%), the behavioral family (70%) and the information-processing family (64%). Seven of eight teachers selected all three items within the personal family of models.

Table 4.3 Teachers' (N=8) Preference for Family of Models by Rank Order and Percentage of Items.

Teacher	**Information -processing** (N=21)*	**Social** (N=9)*	**Behavioral** (N=9)*	**Personal** (N=3)*
Ann	1 (48%)	3 (44%)	3 (44%)	4 (0 %)
Beth	4 (43%)	3 (44%)	2 (78%)	1 (100%)
Carla	3 (67%)	2 (100%)	4 (44%)	2 (100%)
Doris	4 (71%)	2 (100%)	3 (89%)	2 (100%)
Ellen	4 (57%)	2 (100%)	3 (67%)	2 (100%)
Felicia	3 (67%)	4 (44%)	3 (67%)	1 (100%)
Gloria	4 (76%)	3 (78%)	2 (100%)	2 (100%)
Hanna	3 (81%)	2 (89%)	4 (67%)	1 (100%)
Oceanview averages	4 (64%)	2 (75%)	3 (70%)	1 (88%)

*=Number of items per Family of Teaching Models

Teachers reported a strong preference for the personal family of models. However, the type of interactions characteristic of this family of models were seen outside of the classroom rather than during instruction. Three examples follow.

In the first example, the teacher takes on the role of a counselor by helping to build the student's personal awareness. Using non-directive methods, the teacher guides through a supportive position and requests that the student keeps her informed of her progress in a personal situation.

Ms. Doris' door was closed prior to the first class of the day. While the other students waited in the hall, one student, Abby, remarked that this was Maxine's day to have breakfast with her advisor, Ms. Doris. The teacher opened the classroom door for her students and the participant observer to enter. Ms. Doris went back and sat down at a small table with Maxine. There were two cereal bowls and juice cartons along with some rolls on the table. Ms. Doris said, "Maxine, let me know how it works out." The teacher and the student talked with one another. Then the teacher walked her to the classroom door and patted her on the back and wished her a good day.

In the next example, the teacher demonstrates understanding of the need for self-development toward her student building on self-esteem and awareness. The teacher recognizes the young lady for her hard work while also helping the student build social skills

While Ms. Ellen's class was in the computer lab researching information on how to make a pamphlet, a knock sounded on the door. A young lady walked in wearing a powder blue ball gown. Ms. Ellen told the class to continue their research and then turned to the girl and said, "Is that your prom dress? You look absolutely stunning!

Thank you for coming by to show me your choice." The young lady left and Ms. Ellen continued the class. During this study, Ms. Ellen had counseled this student on how to earn enough points to qualify for picking out a gown for prom from the school "Clothes Locker."

In the third example, the teacher demonstrates a concern for the student's physical, mental and emotional health. She models empathy and sensitivity toward the student's needs and acts as a facilitator by encouraging the student to be responsible for missed assignments.

Ms. Beth was overheard speaking with one of her advisees. The student was sick and Ms. Beth had called her at home to see how she was doing and to reassure her that the work missed could be easily made up. Ms. Beth reminded that student that she would assist her in completing missed assignments.

Teachers indicated that their second highest preference was the social family of models. The frequency of their responses ranged from 100% to 44%. The teachers reported that their third highest preference was for the behavioral family of models. The frequency of their response ranged from 100% to 44%. The least preferred family of models reported by the teachers was the information-processing family. The frequency of their responses ranged from 81% to 43%. As reflected in the pilot study, the over representation of items in this category might explain the absence of a 100 percent response rate by any of the teachers.

Overall, Oceanview teachers reported preferences for the personal (88%), social (75%), behavioral (70%) and information-processing (64%) models of teaching respectively. The teachers reported a preference for student-centered instructional practices (see Table 4.1 on page 47) and for all families of models (see Table 4.3 on page 53).

Interview Responses

During the interviews, teachers reported that they demonstrated enthusiasm during instruction. The teachers indicated that they encouraged student involvement by talking with them as individuals and as a group and offering praise. Teachers acknowledged students' varied learning styles by using hands-on learning activities and asking students to show their work on the white board. To foster connections between students prior knowledge and material to be learned, they related the lessons to real life experiences and let students select among varied topics to make inquiry. Teachers reported that they provided a connection between prior material to be learned via explanation. An analysis of the participants' interview responses suggests that the teachers in this study believed that they used instructional practices that were student-centered.

Teachers reported using individual and group activities during instruction. Learning activities were comprised by completing workbook pages, writing reports, listening to lectures, demonstrating their understanding of concepts on the board, and providing individualized instruction. Students worked in small groups, pairs, and individually. At other times they worked as a whole group. Grouping of students was dependent on the lesson objectives and the type of learning experiences provided such as computers, books, video documentaries and movies, overhead projectors, animals or dissected frog in their classrooms. All of the eight teachers reported that they assessed performance by reviewing student class work, homework, quizzes, and test scores. While working with individuals, teachers reported that they tried to enhance student's self-esteem and build their confidence.

When asked to identify the top three goals that they planned to accomplish in their work with the class, 6 of the 8 teachers reported that they planned to focus on increasing individual student confidence, self-esteem, and knowledge. The remaining teachers reported that they would focus on improving student comprehension and success rate in the required state-wide standardized tests.

When asked if there was anything that she would like to change about her teaching, half of the teachers (N=4) reported that they needed more time to get their work done. Others (N=2) wanted additional hands on activities for their students or to have more education (N=1). Another teacher reported that she did not want to change anything.

Research Question 3: How Do Teachers Teach in Alternative Schools?

Teachers demonstrated the use both student-centered and teacher-centered approaches to instruction as depicted in the scenarios that follow.

Examples of Student-Centered Teaching

Descriptions of student-centered teaching are reported below. In the first excerpt, the teacher helps students learn by engaging them in the process and asking students to explain the relevance of what they are learning to the outside world.

Ms. Carla tells her students about television crime shows and explains that there is a relationship between solving crimes and science. Using an example from the show, Law and Order, Ms. Carla explains that, " When we compare what a forensic scientist does for criminology, it would be like what a scientist does in a lab. You would have a *problem* [that] *needs to be solved, you would probably have some idea of what you would actually like to know." Ms. Carla describes the techniques used to solve crimes such as lip , finger and teeth prints.*

She asks students to make and match lip prints. "Yeah, your going to put on lipstick or even lip gloss might work...and then you are going to use a white piece of paper or get a tissue and see if you can match the pattern." Students press their lips to paper.

Students explain how lip prints can aid in solving crimes. One girl suggests that if a criminal took a drink of water, lip prints could be taken from the glass. After students made their lip print, Ms. Carla distributes examples of different patterns. As she explains that each person has a unique print pattern, she points to visual aide that illustrates seven basic lip print patterns.

In the next example, the students are asked to think through a problem and come up with a solution.

On the white board, the teacher has written: "How can you change the speed of a rocket?" She begins class by saying, "Yesterday we worked on creating a rocket. Your rocket is made out of a balloon. And it followed on a fishing line. When doing so, we are really talking about the concept of speed. When we talk about motion, we take the distance traveled in a given amount of time. If I went 10 miles I might have went really far . . . But, if I didn't tell you the amount of time I did it in, I might have gone 10 miles in my whole life . . . If I went 10 miles in two hours, that would be really good for me . . . Until we know the time involved you can't determine speed. So that is what you are doing . . . Now . . .[the] *questions we are dealing with are can you change the speed of a* *rocket? . . . to change the speed of the rocket . . . change the distance or you would have to make it go a faster time or a slower time. How could you change the speed of your rocket? Your rocket is the balloon . . ." Lyndsey waves her hand and answers, "Put more or less air in it."*

The teacher continues . . . "The variable is the thing that you change and that is . . . what are you going to change . . . so you do your rocket and then you are going to want to change a variable . . . that would be your distance or your size of the balloon or the angle which it moves . . . that is what is meant by variable. Your first one is your control and then you changed something on the second."

One of the students states that: "Yesterday, we made the balloon smaller." Ms. Carla replies, " Your variable was less air . . . the amount of air. For each of your three tries, you need to change something . . . Alicia if you help them set up it will be great."

Rita, Janice and Alicia set up the fishing line across the whole room from a cabinet to the white board. Rita blows up a balloon . . . Janice threads a straw onto the line . . . Rita lets balloon go by opening the clip. The balloon end stays together and lets the air out slowly without moving much . . . few inches. Rita tells Janice, "Measure it. How many full meters did you get?" Janice says, "Four point six. That is your first one. What do you think your speed is? Distance divided by what?" Janice answers quickly, "Divide by the time." Ms. Carla said, "Then that is your speed. Now you're going to either want to speed up that speed or slow it down. It equals 4.6 meters per second. Write it like this." ' m' slash ' s'. "

Rita asks, "What do we put as the variable that changed? Janice replies, "The thing that changed. It would be something we change . . . the size of the balloon, the distance, the change . . . change something. Then we record what that change is."

Ms. Carla walks over to a group of students writing up their experiments from yesterday. Heather asks, "Do we have to record what we did yesterday?" Ms. Carla answers, " Yes. Your conclusion has to match your hypothesis."

In the preceding example, the teacher helps students understand how a formula can be used to problem-solve as they work together in an inquiry-based kinesthetic activity. In the following example, the teacher provides an opportunity for students to do research using multi-media.

Ms. Felicia said, "Come into class and begin working on your projects." Without further instruction from the teacher, students begin to research one famous woman in history using magazines, books and the internet on the classroom computer. Students work with poster board, markers, and colored pieces of paper to depict their findings and to organize their report. One student, Mariana says, "Can you believe that she is six foot one and a half? How am I going to organize this on the poster?" Michele, the student sitting next to her replies, " . . . make a collage."

Angela calls out to Ms. Felicia from a nearby table, "I need some advice on my project." Ms. Felicia walks a few steps and looks over the student's shoulder. Angela says, "She was an important person...that is why I am doing this report. I have these pictures but am not sure what to do." Ms. Felicia said, "You can put one here, or put one here. What about right there?" Angela replies, " Oh, I know what to do with it, thank you."

In the following examples, inquiry learning and problem solving was observed.

In Ms. Carla's class, students were observed developing questions and searching for information regarding a self-selected environmental issue. Each student has interviewed at least four classmates and four adults using questions the teacher provided. The environmental topics they investigated included: recycling paper, plastic and cans, forest preservation, water pollution, and protecting endangered species. After conducting interviews and writing a paper, students gave an oral report on what they had learned.

In Ms. Ellen's class, students used color coded advanced organizers to help them remember and classify diseases caused by either bacteria or viruses. Mnemonics (an information-processing strategy) was observed during a study skills, a mathematics, and a science class.

Examples of Teacher-Centered Teaching

Descriptions of teacher-centered behaviors are reported.

In the following example, the teacher explains to students what they need to know about angles. As the teacher presents the information, students are observed copying the information.

While sitting is a chair at the front of the room by the blackboard, Ms.Gloria states: "OK are we ready? When two lines intersect they form two pairs of opposite angles" . . . [Teacher draws the illustration on board] "You need to write this information down. When two lines intersect, they form two pairs of angles called vertical angles."

"Angles one and three are vertical angles, as are angles 2 and four. If you use the protractor to measure the angles, you would discover that the angles have the same

measure. Angles with the same measure are congruent. Write that down." While pointing to angle one, Ms. Gloria states:" So, if this was 30 degrees . . . the measure of angle . . . what would the measure of angle three be?" A student answered, "Thirty degrees?" Another student, Letisha, restates the concept, " So, congruent means . . . angles with the same measure are congruent."

Continuing, Ms. Gloria said, "Write this down. When two angles on the same plane have the same vertex, do not overlap and share a common side they are adjacent." She instructs the students to draw an example in their notes. " Angle AOB ...draw adjacent." Ms. Gloria draws angle AOB on the board. "Add the measures of angle one and angle two. That is the sum of angle one, and the sum of angle two equals AOB. If the measure of angle one is 50 degrees and the measure of angle two is 30 degrees, What is the measure of AOB? These two are adjacent. I said that the measure of angle one and the measure of angle two equal the measure of AOB." The lecture continues and students are observed copying notes at the teacher's direction.

In the next example, the teacher provides whole class instruction and students read as directed.

Ms. Doris states, "Everyone get a GED book . . . go ahead and start reading." She waits until all students are seated and continues, "O.K . . . does anyone have any questions? Get started and then we will do the questions together. Sarah, please begin reading the first paragraph." Sarah reads aloud from the text. Ms. Doris reads the next paragraph.

Next, Ms. Doris instructs Erin to read the next paragraph aloud. Other students appeared to be following along. Ms Doris added the comment," Particles have both a *positive and negative side. Now remember that . . . go ahead." Erin continues reading. Then, Ms. Doris assigns another student to continue reading the next paragraph aloud. At the end of the reading, the teacher announces, "Go ahead answer the questions on you paper. Think about science and what you have read." Students remain quiet and in their seats. They are observed working on the assigned seat work. After about 10 minutes Ms. Doris asks, "The particles found in an atom are what, Becky?" Becky replies, "C." Ms. Doris clarified, "Did every one hear that? Protons, electrons . . . neutrons . . . C. Continuing, Ms. Doris states, " Number two . . . the atom makes up all of matter . . . true or false, Patty?" "True." states Patty. " Matter is made up of electrons and protons . . . true or false what did you get, Noreen?" Ms. Doris asks. Noreen replies, "False." The teacher continues to ask the questions in sequential order and selects one student at a time to respond.*

As predicted by the results of the TBPS and interview responses, the majority of instructional practices observed during classroom teaching demonstrated that the teachers had a preference for student-centered instructional practices (see Table 4.4).

Table 4.4 Frequency of Student- and Teacher-Centered Instructional Practices Among Teachers (N=8)

Observed Student-Centered Practices	**Observed Teacher-Centered Practices**
26 (72%)	**10 (28%)**

Note: As described on page 47, 7 of the teachers had 5 teaching activities observed, while the remaining teacher had one. Teaching activities and teaching events are synonymous.

Research Question 4: Do Teachers Use an Explicit Model of Teaching During Classroom Instruction?

To answer this research question, instructional models of teaching were identified as they occurred during the classroom observations of teachers. The use and frequency of a teaching model by a particular teacher and across all of the teachers was documented and provided as evidence to either support or refute the question. In all, 46 instances of teaching models were observed. As shown in Table 4.5, the teachers used a variety of explicit teaching models. Behavioral family of models (35%, N=16) were observed most frequently, followed by information-processing models (28%, N=13), and social models (15%, N=7). Personal models were observed, but not as part of formal instruction (22%, N=10).

All of the participants in this study used the personal family models. However, the enactment of these models occurred before, during, or after the scheduled classroom period when individual students were pulled aside, or after class rather that during classroom instruction. Examples of the personal family of models were previously described on page 56.

Each teacher also demonstrated non-instructional use of time usually at the beginning of a class and at the end of a scheduled class period. For example in 30 of 36 classes, the beginning 5 to 8 minutes of class time were spent on: directing traffic, looking in the hall and asking students to come into class, calling on the intercom for missing students, and attending to housekeeping details. During one observation, the teacher waited for 7 out of 10 senior class members to come into her room while they were in the cafeteria completing a required state test. Twenty-minutes of non-instruction occurred while the teacher and three students waited and either chatted with each other or did independent non-class work.

Table 4.5 Frequency of Instructional Models Observed

Family of Models	Percent (N=46)	Instructional Model	Percent (N=46)
Behavioral	35% (N=16)	Mastery learning	33% (N=15)
		Direct Instruction	2% (N=1)
Information Processing	28% (N=13)	Advanced Organizer	9% (N=4)
		Inductive Thinking	4% (N=2)
		Inquiry Training	7% (N=3)
		Concept Attainment	4% (N=2)
		Cognitive Growth	2% (N=1)
		Memorization	2% (N=1)
Social	15% (N=7)	Partners in Learning	13% (N=6)
		Role Playing	2% (N=1)
Personal*	22% (N=10)	Non-directive	22% (N=10)

*Observed, but not part of formalized instruction

Non-instructional time resulted when a whole class had to move from the computer lab to the classroom. This process took over 15 minutes in one 50-minute period resulting in a loss of instructional time exceeding 30%. During some classroom observations, after students had completed an assignment, they were given free time while the teacher did paperwork or made phone calls to parents. On at least three occasions, the teacher was observed making a call to their spouses or children.

In 83% (30 of 36) of the observations, there were periods of 5 to 20 minutes in which no model of teaching was being used. At times, no model of teaching was observed because teachers were trying to locate students attending an assembly, taking state mandated tests, taking a swimming test, or looking at the "clothes closet" to pick items earned for good behavior. An approximate total of 375 minutes was lost due to non-instructional time during the observations. This is equivalent to seven and a half classroom periods or 20% of the total time observed.

The instructional models observed during classroom instruction excluding the personal models of teaching are shown in Table 4.6. Samples of classroom observations in which a particular teaching model was used will follow. An example of the mastery learning behavioral family model is presented first. An example of instruction using the advanced organizer model and the inductive model from the information-processing family of models precedes a description of group investigation from the social family.

Table 4.6 Frequency of Family of Teaching Models Observed Among Teachers

Family of Models*	**Behavioral**	**Information-processing**	**Social**	**Total Observed**
Oceanview Program	16 (44%)	13 (36%)	7 (19%)	36 (100%)

- Excludes personal family of models

The Behavioral Family: Mastery Learning

The senior high school math teacher, Ms. Beth asks students to get their papers out from the day before. When the last of the 8 students in the class sits down, Ms. Beth said, " All right, does everyone have a book? Turn to page 131." A student sitting on the left side replies, "Turn to page what?" Ms. Beth repeats, " 131 . . . come on we need to get started [and] prepare for the test . . . OK lets get started . . . Maxine, please read number one."

Maxine reads the word problem verbatim from a GED math workbook. "OK, who wants to try this problem on the board?" the teacher asks. Yolanda waves her hand in the air and says, " Me . . . me . . . me." The teacher nods her head. Yolanda writes the problem on the board.

Ms. Beth reviews the student's work aloud, "All right, good. She has one-forth cup of sugar, but she wants to use only one-half of the recipe. She multiplies by two and gets one-eighth. One-forth times one-half is one-eighth. Another way to think about that is that you have one forth cup and divide it by 2. What do we have to do when we divide by fractions here?" Yolanda points to the problem on the board and states, " We have to flip." Ms.Beth continues, "Good. That's another way to do it. Whatever way you want to do it is fine by me OK . . . number two, Abby . . . " Abby reads the problem out loud.

When Abby finishes, Ms. Beth asks, "Who wants to go the board?" Tracy speaks out without being called, " I do." Ignoring the student, Ms. Beth tells Abby to explain the problem. Abby explains that Jose wanted to drive somewhere and told the class to divide by the number 5 while working out the problem on the board as other students watch. Ms. Beth offers encouragement, "Good . . . very good . . . How long is the whole trip?"

Abby replies, "Sixty miles." Ms. Beth repeats, "Sixty miles." She scans the class and asks, "What part has he gone so far?" Tracy calls out, "45."

Ms. Beth repeats, " 45 . . . Very good . . . Put the part over the whole . . . good job . . . Tracy, will you read please?" Tracy reads the next problem aloud and the other students in class appear to follow in their text. Ms. Beth asks, " Do you want to put it on the board?" Tracy walks to the board. Ms. Beth watches what Tracy writes and turns to face the class. "OK . . . how many miles has he driven so far?"

Melody answers, "Fifty." Ms. Beth looks at Melody and asks, "How do you find out what he has left?" Melody says, "Subtraction." Ms. Beth repeats," Subtraction . . . actually, if he goes . . . 60 minus 45 is 15. The fraction is the part of the whole . . . the part that he has left . . . then she reduced by five and got three-twelfths and thought that she could reduce more and she got one-forth...there is one-forth of the trip left. On the last problem we said he had gone how far? What part of a fraction . . .?" Tracy answers, " Three-fourths." Ms. Beth repeats, "Three-fourths right? So if he had gone one, two, three-fourths, how much does he have left?" Yolanda says, " One-fourth." Each student copies down the problem.

Using a highly structured learning environment, Ms. Beth teaches students how to solve problems that require calculating proportions. After each student works out a problem on the board, Ms. Beth reviews the sequence of steps that were needed to solve the problem. She provides praise or corrective feedback. She reinforces how multiplying and reducing fractions can be used to find the correct answers to each problem.

The Information-Processing Family

Advanced organizer. During social studies, Ms. Ann used an advanced organizer, an outline on world religions. Using the organizer, the teacher is able to present the information in a structured manner and help students integrate the information being presented.

Ms. Ann hands out an outline of a talk to be given in class titled "World Religions Seminar." She also displays the outline on an overhead projector. At the top of the outline is a brief introductory statement reading, "The core of every culture in the world is their religious beliefs." Four headings are shown on the outline: I. Orthodox Christian Beliefs, II. Basic Beliefs of Hinduism, III. Basic Beliefs of Buddhism and, IV. Basic Beliefs of Islam. Under each heading the four basic principles of each religion described are bulleted.

The teacher reviews each heading and subheading. Using the advanced organizer, the students are given a brief overview of the material to be covered for the next week. The teacher helps students make comparisons between the basic religions, their own and others'. The organizer provides a framework in which students can compare the familiar, their own personal basic religious beliefs, with the unfamiliar, such as the beliefs of others throughout the world.

"There is one thing, the core or center of every culture that will help you understand the people of that culture." A student responded by saying, "Their religion." Ms. Ann continues, "Right, their religion. If you find out what religion a culture has, you know more about the people who live there."

Continuing this discussion, Ms. Ann asks, "Which is the predominant religion of India?" Sue replied, " Hinduism and they don't eat meat." Ms. Ann continues, "That's right, they are vegetarians. Why is that?" Jessica replied, "They believe everything has a soul." Ms. Ann then asks, " What is the word for soul in the Hindu religion?"

The teacher guides the class through the advanced organizer by asking questions. The answers could be found on the outline. *"The founder of the Jewish religion is God with Christianity founded by Jesus . . . The founder of Islam is Mohammed, the founder of Buddhism is Buddha, and there is no founder of Hinduism but three main gods . . .Rama, Bishu and Shiva."*

Ms. Ann helps her students' process this new information by presenting it in a format in which it could be easily assimilated. Ms. Ann tells the students that during the next week they will learn more about world religions by watching video presentations and listening to guest speakers. She encourages students to use the advanced organizer as a study guide for the quiz that will follow at the end of the week.

Inductive thinking. Ms. Carla demonstrates the model of inductive thinking as part of the information-processing family. She challenges her students to predict the outcome of a buoyancy experiment, formulate a hypothesis, and attempt to explain the hypothesis.

Ms. Carla begins the lesson by writing the word "buoyancy" on the blackboard. She explains that it means " . . . the ability to float and resist gravity. Gravity wants to keep everything on the earth. Gravity wants to keep everything down. I don't float, you don't float . . . You don't float. Sometimes you get something heavy . . . what are ships made of? They are made of steel . . . is that kind of heavy? How in the world are you going to get that to float? So buoyancy is somehow getting the ability in such a design so that it will float on top of the water instead of doing what the material by itself would just do it would actually sink. So buoyancy works against gravity."

Ms. Carla reviews the parts and directions of the experiment, ". . . you had little canisters with a hole in them and then you have seltzer tablets, baking soda, baking powder and pennies. Some combination of these ingredients is going to allow you [to see that] when you put your submarine in here [water] it is initially going to sink to the bottom. What kind of reaction is going to take place when the water connects with these chemicals? Its gonna react in such a way that it will cause your submarine to come back up and it will float."

The teacher then instructs the students to predict how long it will take their self-designed submarine to sink down to the bottom of water and float back to the top. Next, she tells students to keep a data sheet that shows the different combinations of ingredients used when they tried to figure out the problem. *As Ms. Carla stated, ". . . so that if you put in one seltzer tablet in here and 25 pennies you would know that submarine didn't work. Well how do you need to change it? How will you change the submarine so that the next time it might work . . . As you do the experiment, write out the steps . . . what is the problem . . . write the hypothesis and keep a data sheet."*

One student states, "I already know what was going to work . . . what was wrong with the hypothesis? It didn't work!" Ms. Carla replies that, ". . . there is not just one correct way, so everybody should not have the same solution . . . some of you are combining things . . . you could also try just the pure stuff, too. For your first try . . . write it down. Note what were you thinking and did it work. Indicate what you plan to do next . . . It just looks like it won't work . . . try to do something different. Think . . . think about what you are doing and where you will go next. Maybe you need more weight, then add pennies. Or, maybe you need more buoyancy . . . change your formula.

Don't give up. This might be more accurate this time. Add one at a time. Write down your data. How many pennies did you use? It sounds like you didn't quite get it. If you used four then use five. If you used five, then use six." After, all of the students get their submarines to float. Ms. Carla asks them to write up their predictions, hypotheses and conclusions.

The students in Ms. Carla's class learn the concept of buoyancy by first exploring its meaning, collecting data and interpreting it. Next, they develop and test hypotheses. Experimental variables are then modified, and then hypotheses are re-evaluated. Ms. Carla explains to students that each one might have a unique method and hypotheses to make the submarine sink and then float. While the method and hypotheses might be different from student to student the outcome would be the same: a buoyant submarine.

The Social Family: Partners in Learning

Ms. Hanna begins the lesson by dividing students into cooperative learning groups. "What we are going to do is we are going to have a detailer, a recorder, which is the person who is actually drawing on the poster board. We are going to have a supervisor who will make sure that every one is doing what they are supposed to be doing. You have markers in your basket. We are going to learn about the cockroach. In your groups you are going to decide which job you are going to have."

Ms. Hanna instructs each group member to silently follow the handout while the reader reads it out loud. The teacher explains that there will be a test on the material in about two weeks. "You cannot use your notes, and I'm going to give you guys a incentive for doing well on it." Ms. Hanna continues, "I want to see how well you will remember the details about the cockroach after having read it today and not seeing it again.

The groups are instructed to come up with pictures that represent the materials read; they cannot use words. The teacher gives an example of the process by explaining, "One of the things that cockroaches eat is dog food. So you may possibly draw a bag with a dog on it or a bone...you will not draw Purina dog chow. There will be no words." Ms. Hanna continues to provide directions about how to complete the assignment. "You have 15 minutes to decide who is the reader, who is the recorder and who is the supervisor. No words...write your name and your title on the bottom of the paper. You've got 15 minutes."

The students split into three groups of three and begin choosing roles and jobs. Some are reading and others are drawing while the supervisor observes. Hanna circulates and watches. "The only people who need to know what the picture means is the three of you." All of the students were observed being engaged in reading, writing, drawing or discussing the concepts among their group.

Ms. Hanna reminds the students that, "All you are going to be able to use is the poster. Look at the picture. Make sure that you understand what those pictures mean. On the quiz the only notes you can use are [pictures] those posters. Make sure you understand [them] those pictures. If you only have a few pictures, you might want to draw more."

While working cooperatively, students created a pictogram about cockroaches that will serve as a study aid.

Research Question 5: Is There a Correspondence Between Alternative Education Teachers' Beliefs and Actual Instructional Practices?

To answer research question five, the results of the first four questions were analyzed to draw comparisons among teachers' TBPS results, interview beliefs, and practices. The models of instruction that were observed during classroom instruction were compared with results of the TBPS and teacher interview transcripts.

Among 7 of the 8 teachers who agreed to participate in the research project, there was a correspondence between their reported TBPS results, interview beliefs and observed instructional practices. The remaining teacher demonstrated a correspondence between the beliefs she reported during the interview and her observed instructional practice.

The majority of the activities used by the teachers were student-centered. These findings were consistent with the results of the TBPS. Examples of student-centered activities that were demonstrated include discovering how to make a submarine buoyant with empty film canisters and water and making a poster out of environmental friendly brown paper bags to demonstrate the concept of conservation. Another teacher assigned students to work in a group to halve a chocolate chip cookie recipe to have enough to feed the entire class. Students were also expected to use mathematics skills and problem solving.

Teachers use of varied student groups were observed. Four examples follow. A group of four students worked together to dissect a frog. A teacher instructed students to work independently and complete work sheets. During whole class instruction a teacher explained the dangers of sexually transmitted disease to students. In another class, students worked in pairs to solve mathematics problems. The ways in which teachers described how they taught during interviews were an accurate depiction of the instructional practices observed in the classrooms.

The findings of the TBPS were also demonstrated in classroom observations. During the interview, Gloria indicated a preference for the behavioral family of models of teaching with a focus on mastery learning. She indicated on the TBPS that she preferred her lessons to be behavioral (67%). Gloria was also observed using the behavioral family of models in practice all five of the observed classes. Whole class instruction focused on mastery learning was demonstrated as each student followed the teacher's lecture in their work books. Students were required to become proficient in a concept before moving to the next level. Ms. Gloria required students to copy what was on the board in their notebooks. Tests were based on factual information and skill building.

Beth, a senior high school mathematics teacher demonstrated a correspondence between her TBPS and interview beliefs and classroom observations. Beth selected 100% of the items for the behavioral family of models of teaching on Part II of the TBPS, indicating a strong preference for student mastery. In addition, when interviewed, Beth explained that her students were at varied ability levels. She explained that students had to master skills that built on one objective at a time. She used workbooks to help each student master the concepts that they need to know to pass the high school competency test and the GED.

In practice, Beth assigned individualized seat work and used learning activities that addressed mastery of a structured hierarchy of skills. Programmed computer instruction was used to reinforce the classroom lessons and ensure student mastery.

Summary

Results of the TBPS, personal interviews and teacher observations showed that the beliefs held by teachers were reflected during actual instruction. The Oceanview teachers reported a preference for student-centered instructional practices. Classroom observations revealed that instructional practices were predominately student-centered. The participants used a variety of explicit models during teaching. The behavioral family was observed most frequently (35%) followed by information-processing (28%) and social (15%) models. Examples of the personal family (22%) were observed before, after or during the class period, although these models were not observed explicitly during classroom instruction. All of the teachers demonstrated the use of personal models, although only some of the teachers used behavioral, social or information-processing models. During the classroom observations, it was found that allocated instructional time was not always used for instruction. During these times, no specific teaching models were observed.

Of the eight teachers participating in the study, seven demonstrated a correspondence between belief, preference, and practice. The eighth teacher had the same belief and practice, but expressed a difference regarding preference on the TBPS. There was a correspondence between instructional beliefs, reported practices and classroom instruction among the teachers who participated in the study.

CHAPTER 5
SUMMARY AND CONCLUSIONS

The purpose of this study was to understand teachers' beliefs about the enactment of instructional practices within an alternative educational program. The purpose of this chapter is to provide a summary of the findings, describe implications of the findings and to suggest recommendations for further study.

Summary of the Findings

Teachers' Beliefs

Overall, teachers reported a significant preference for student-centered practices. An analysis of paired items revealed that there was a significant difference between the items in 6 of the 15 pairs. Oceanview teachers reported a preference for student-centered instructional practices regarding the learners' performance, assessment, questioning techniques, student classroom behavior, communication and classroom environment. Oceanview teachers reported they adjusted their teaching techniques based on individual students' performance. They reported that assessments were selected upon the basis of the material taught. Teachers indicated that they acknowledged student body language, facial expression and verbal communication rather that solely verbal communication. Participants reported that they questioned students frequently to assess their comprehension. They also reported that they used the same teaching techniques for all students, and they provided a supportive cooperating learning environment.

Interview Responses

During the interview, participants reported that they used student-centered instructional activities. They indicated that they used both individual and group activities such as lecture, board work, work book pages, reports, and individual instruction.

Teacher Observations

Observations of classroom teachers revealed that teachers at Oceanview use both student-centered and teacher-centered practices. Although the majority of the 36 observations, 26 (72%) were student-centered. These findings are consistent with the previous findings about belief and preference.

Models of Teaching

Using Part II of the TBPS as a tool for quantitative measurement, it was determined that overall, teachers reported a preference for the personal family of models. This strong predilection for the personal family of models of instruction was not reflected in the formalized instructional lessons observed. However the personal family of models was noted frequently during one on one student-teacher interactions outside of the structured lesson. Most of the time this was an unplanned interaction and therefore not explicit. Following the number one preference for the personal family of models, teachers reported preferences in rank order of second through fourth as follows: social, behavioral, and information-processing models. Participants did not indicate a preference for a particular model within a family of models of teaching.

Teachers' use of explicit models of teaching. Teachers used at least one and sometimes two explicit models of teaching during the observation portion of the study. However, each teacher showed a strong affinity for one family of models in particular.

The behavioral models of teaching were observed the most frequently at Oceanview. Mastery learning was used the most often in the mathematics and science classes. The prevalent use of behavioral models of teaching can be appreciated when one realizes that the alternative curriculum is built on a behavioral modification social system.

Non-instructional use of time. Attending to the personal needs of the students as well as the housekeeping chores required by the school was a disruption to the flow of the time assigned for teachers to perform instruction. First period classes rarely started on time due to extended assemblies that occurred each morning. Some teachers gave a bathroom break the first five minutes of class. Tracking down students who were not in class during the scheduled time also contributed to a loss of allocated instructional time. Continual disruptions such as announcements over the intercom routinely interrupted scheduled teaching time.

Correspondence Between Belief and Instructional Practice

Overall, there was a correspondence between teachers' reported beliefs on the TBPS, in the interviews and during classroom observations. These findings occurred despite teachers' age, training, experience and grade level taught. As a result, the findings suggest that the TBPS instrument may have predictive validity for classroom teaching practices.

Conclusions and Implications

In a climate of funding cuts and accountability, school programs are under considerable scrutiny to demonstrate success in pupil retention and graduation rates. One way to increase student retention is to offer specialized programs to meet the learning needs of a varied educational population. Alternative programs that specialize in teaching students at risk may be one solution to the problem. However, there is great controversy regarding the effectiveness of alternative programs (Kellmayer, 1995; McCombs, 1998). Some alternative education schools have high rates of student retention. Others remain inconclusive or have low retention rates (Eggebrecht et al., 1997; Kennedy & Morton, 1999).

The effectiveness of school and student outcomes is inextricably related to the effectiveness of teachers' instructional practice and personal beliefs. (Smylie, 1990). Teachers' beliefs directly impact their practice (Ashton , Webb, & Doda, 1983; Fletcher, 1990; Ross, 1994). This study sheds light on the correspondence between teachers' instructional practices and beliefs within one particular program. Continued investigation is needed to explore teachers' beliefs, preferences and practices in other alternative school programs. Although this study was undertaken to analyze the relationship between beliefs and practice, further studies are needed to explore the relationship between teacher belief, practice, and student outcomes.

The results of this study have some policy implications regarding effective instruction and school leadership particularly in the realm of principal and teacher training. This study does not determine teacher effectiveness. This study focuses on characteristics of alternative school teachers' practices and how they relate to the characteristics of teaching behaviors that are typical of effective schools. Several areas of interest and concern arise from this study regarding (a) the use of models of teaching in an alternative setting, (b) use of survey instrument as an indication of teacher preferences, (c) reduction of classroom interruptions, and (d) focus of achievement testing driving curriculum.

Models of Teaching

A study by Behar-Horenstein and Seabert (2002) revealed that when teachers were observed in a regular school setting, models of teaching were used less than one-fourth of the time. However, while observing teachers in the Oceanview alternative school, it appeared that models of teaching were used almost every time, although not necessarily for the whole classroom period. Because these two studies had different outcomes, conclusions regarding what teachers are doing in regard to models of teaching should not be drawn without further investigation. The difference in educational philosophy, organizational leadership, climate, and type of school may impact on whether models of teaching are used.

In addition, despite the consistency between belief, preference, and practice on behalf of the teachers in this program, there is room for growth by expanding the variety and types of models used in this program. The use of teaching models should continue to be examined with various alternative populations. While the teachers at Oceanview demonstrate the use of all of the models of teaching as a collective group, individual teachers would benefit greatly from expanding the use of one or two families of models to as many as fits their subject area and expertise (Behar-Horenstein & Ganet-Sigel, 1999). Teachers become more effective with experience and training (Fullan, 1997; Eisner, 1999). This training should include not only content and process but an emotional dimension as well. With this training, principals and teachers will be able to create the environment needed to promote cognitive, social and emotional skill development of the alternative student (Kennedy & Morton, 1999).

Models of teaching are integral to teaching and can help all students reach their learning potential irrespective of their abilities, attitudes, and limitations. Models of teaching provide a language for teachers and administrators to talk about factors such as instruction, classroom structure, support, and use of pedagogical aids that are characteristic across classrooms. The models really are frameworks that provide a conceptual mechanism to facilitate teacher awareness about instructional behavior, to assess the impact of instruction and to modify instructional approaches as the content or the needs of the student learners necessitate change.

The Teacher Behavior Preference Survey (TBPS)

To assist principals and teachers in determining which models of teaching are consistent with their preferences, the TBPS appears to be an instrument worth further exploration. The survey instrument appears to be a good predictor of teaching behaviors in the classroom (Anusavice & Behar-Horenstein, 2001). First piloted in an environment of higher education, this study demonstrated how it could be used in an alternative education setting. This instrument may help teachers define their personal preferences and where these fit in with the school mission and vision. Teachers who learn more about themselves are a greater benefit to the learning community (Gunter et al., 1999).

Principals may be interested in discovering the preferences of their teachers in an effort to enhance the effectiveness of teaching the classroom. Along with information regarding the teaching practices, the use of this instrument could enhance general knowledge of the overall make up of a school staff's instructional beliefs and practices. Achieving a school environment where a blend of all of the models is used over an emphasis of one type can help to balance between the variety of materials and activities used to meet the needs of the students and teachers alike (Callahan et al., 1998). Using the families of models is integral to teaching and helping all students reach their learning potential irrespective of their abilities and attitudes.

Knowing the preferences and beliefs of the teaching staff can also assist principals in finding and keeping good teachers. Teachers who purposefully use explicit models of teaching are more effective in teaching students how to learn (Jacobsen et al., 1999). Coaching faculty in the use of the families of models can provide a conceptual framework as well as a language for teachers to communicate with each other and with their supervisors. Particularly in the field of alternative education where there is such a high rate of burn out, accessing the best staff and teacher retention continues to be a challenge for principals (Cookson, 2000; Farber & Asher, 1991; Freedman, 1990).

Reduction in Classroom Interruptions

Burden and Byrd (1998) found that flexibility within an education environment is an important teacher quality. Teachers in the alternative setting serve many roles including academic instructor, counselor, disciplinarian, and coach. However, having a classroom agenda of learning should be the focus rather than selling the yearbook or buying prom tickets. In 83% of the observations (30 of the 36), time lost due to non-instructional use of scheduled class time ranged from 5 to 20 minutes. In this one area, it would benefit Oceanview school to have a specified period for announcements and phone calls and reduce the amount of interruptions during classroom time.

Belief, Practices and Outcomes

As discussed previously, belief impacts practice. Practice impacts student achievement (Ashton , Webb, & Doda, 1983; Fletcher, 1990; Ross, 1994). In this study, no efforts were undertaken to analyze the relationship among beliefs, practices and outcomes. However, future studies might explore these relationships.

It is important to study instructional practices because of the impact on the student. Using a variety of materials and activities that are well organized and providing a caring environment correlates with student achievement (Harris, 1998). As with many schools in this period of accountability, there is an underlying pressure regarding achievement testing. While traditional public schools focus on academic achievement and mastery of reading and mathematics (Kohl, 1994) alternative schools must also provide an environment responsive to students' cognitive abilities and psychological capacities (Pianta & Walsh, 1996). Student needs for physical health, mental health and safety must be met before engagement in learning takes place (Kronick, 1997).

One of the distinguishing characteristics of alternative schools is the emphasis on the student-centered curriculum (Kallmayer, 1995; Raywid, 1994). Pianta & Walsh (1996) found that while alternative schools address the underlying social needs of the at-risk learner, they may not necessarily address the students' academic problems. Focusing on process and content will help to maintain the accountability needed with a group of learners who are usually significantly below grade level on achievement standards and keep a student-centered learning environment desired by the professional in this field (Catterall &Moody, 1997).

Recommendations

The results of this study suggest that there is a correspondence for most teachers in the Oceanview program between teacher belief and practice. Research shows that teacher effectiveness is influenced by a consistency of personal belief and instructional practice (Ashton, Webb & Doda, 1983; Fletcher, 1990; Ross, 1994; Smylie, 1990). Therefore, a program built on teachers who are consistent between belief and practice might be considered effective.

Recommendations for future study might include continued investigation of similarities and differences between instructional practices in regular and alternative school settings. In addition, there should be an expansion of the study of correspondence between what teachers believe and practice to include how such a relationship effects outcomes of students' learning. There should also be studies in staff development and teacher training in the models of teaching including how student achievement may have been impacted by teachers who implemented models of teaching after training. Also, changes in instruction should be documented before and after such training.

Instructional Practices in Regular and Alternative School Settings

Instructional practices used in alternative schools are based upon what has been successful in regular school setting. While the class size tends to be smaller and the range of skills of the students is wider, the process and content of how learning takes place and what is to be learned is similar. Further investigation of instructional practices in both regular and alternative school setting is recommended. Collaboration and sharing of techniques, models of teaching and beliefs, including how these translate into practice, should be a regular part of the academic environment. In addition, further investigation into what teachers believe and practice and how student outcomes are effected should also be studied in both regular and alternative school settings. Process-product research and its dependence on observable behavioral outcomes fails to take into consideration the context in which curriculum occurs (Behar-Horenstein & Seabert, 2002). Research on teachers in the 21st century are moving towards qualitative forms of inquiry (Kagan, 1992). Thus, more research in the area of outcomes (both academic and behavioral) in context in which curriculum occurs is recommended.

Staff Development and Teacher Training in the Models of Teaching

While Oceanview participants demonstrated a preference for one or two models of teaching, Harris (1998) recommends that the most effective teachers use a wide array of models. Despite the consistency between belief, preference and practice on behalf of the teachers in this program, there is room for growth by expanding the variety and types of models used in this program. Although teachers at Oceanview demonstrate the use of all of the models of teaching as a collective group, individual teachers would benefit greatly from expanding the use of one or two families of models to as many as fits their subject area and expertise (Behar-Horenstein & Ganet-Sigel, 1999). Therefore, it is recommended that further staff development and training in models of teaching take place on a regular basis. The more tools a teacher has to deliver instruction, the more effective the teacher will be. Teachers benefit from having a range of models to chose from (Behar-Horenstein & Ganet-Seigel, 1999).

Summary

A discussion of the implications of the study, connection to theory and recommendations for further study were provided. The impact of the study extends beyond the alternative education setting into the areas of leadership decision making. Knowing that there is a correspondence between teacher belief and practice in an alternative setting can impact upon the selection, placement and training of staff. An alternative program can be shaped and developed according to the beliefs and practices of its teachers to meet the needs of the intended population.

When teaching models are used explicitly by the teacher, they become compelling educational tools to be used to surmount the limitations of race, gender, culture and socioeconomic status which are known for impeding the educational process in some students (Joyce et al., 2000). Thus, in an alternative program such as Oceanview, in which the learners have a variety of abilities and socioeconomic backgrounds, the use of explicit models can be a valuable instrument for teachers (Harris, 1998).

APPENDIX A
TEACHER DEMOGRAPHIC QUESTIONAIRE

Teacher Demographic Questionnaire

Name: ______________________________

1. **Age:** ☐ 21-30 ☐ 31-40 ☐ 41-50 ☐ over 50

2. **Gender:** ☐ Male ☐ Female

3. **Race:** ☐ White ☐ Black ☐ Hispanic ☐ Asian ☐ Other: ______
(Specify)

4. **Degree:** ☐ Bachelor ☐ Master ☐ Specialist ☐ Ph.D./Ed.D.

5. **Year of latest Degree:**
☐ < 1970 ☐ 1970-1979 ☐ 1980-1989 ☐ 1990-1999 ☐ > 2000

6. **Number of years teaching experience:**
☐ 0-5 ☐ 6-10 ☐ 11-15 ☐ 16-20 ☐ over 20

7. **Area of Certification**
☐ PreK-3 ☐ Elementary ☐ Middle ☐ Secondary ☐ Spec. Ed.

8. **Subject(s) teaching in alternative school:**
☐ math ☐ science ☐ language ☐ soc. study ☐ other _____
(Specify)

9. **Number of years teaching at this alternative education site:**
☐ 0-1 ☐ 2-5 ☐ 6-8 ☐ >8

10. **Number of years teaching in alternative school(s):**
☐ 0-1 ☐ 2-5 ☐ 6-8 ☐ >8

APPENDIX B
TEACHER INTERVIEW PROTOCOL

Teacher Interview Protocol

Interview Questions

1. How do you engage students?

2. What activities do you use in the classroom?

3. How do you organize students for classroom activities?

4. What type of instructional support do you use? (Text, media, etc.)

5. How do you know how well your students are doing?

6. In your work with individual students, what do you plan to achieve?

7. Name the top three goals you plan to accomplish in your work with the class. (The class being taught during the teacher observation in the study.)

8. Is there anything that you would like to change about your teaching?

APPENDIX C
TEACHER OBSERVATION PROTOCOL

Teacher Observation Protocol

1. Sequentially describe the tasks that students are asked to do.

2. Describe student and teacher roles and their respective involvement in the lesson.

3. Describe the teacher's response to students' questions and answers.

4. Identify and describe how instructional supports are used throughout the lesson.

5. Diagram the classroom arrangement.

Adapted from Anusavice (1999)

APPENDIX D
INFORMED CONSENT DOCUMENT

Teacher Consent Form

Dear Teacher,

I am a graduate student in the Department of Educational Leadership at the University of Florida, conducting research on teaching in alternative schools under the supervision of Dr. Linda Behar-Horenstein. The purpose of this study is to investigate teachers' preferences and instructional practices in an alternative education setting. The results of this study may help teachers in alternative school settings better understand their beliefs and why they teach in a particular way. These results may not directly help you today, but may benefit future teachers and administrators in alternative schools.

I am requesting your participation in a series of observations in your classroom, and a survey that will ask questions about your work with students. Your participation is voluntary. The written survey will take approximately fifteen minutes of your time to complete. Teachers will not be identified by name within the study. Your identity will be kept confidential to the extent provided by law. Results will be reported only as group data. You have the right to withdraw consent for participation at any time without consequences. There are known risks or immediate benefits to the participants. No compensation is offered for participation.

If you have any questions about this research project, please contact me at (904) 345-7545 or my faculty supervisor at (352) 392-2391 ext. 269. Questions or concerns about the research participant's rights may be directed to the UFIRB office, University of Florida, Box 112250, Gainesville, FL 32611; (352) 392-0433.

Sincerely,

Christine Neuenfeldt

****

______Yes, I am willing to participate in Christine Neuenfeldt's study by filling out a survey and being observed regarding my preferences and practices in an alternative school setting.

_____ No, I am not willing to participate in this study.

Teacher Signature	Date

****

[] I would like to receive a copy of the results of this study when completed.

APPROVED BY
University of Florida
Institutional Review Board (IRB 02)
Protocol# 2001-279
For Use Through APR 0 9 2002

APPENDIX E
INSTITUTIONAL REVIEW BOARD APPROVAL

UNIVERSITY OF
FLORIDA

Institutional Review Board

98A Psychology Bldg.
PO Box 112250
Gainesville, FL 32611-2250
Phone: (352) 392-0433
Fax: (352) 392-9234
E-mail: irb2@ufl.edu
http://web.ortge.ufl.edu/irb/irb02

DATE: 26-Apr-2001

TO: Ms. Christine Neuenfeldt
12867 Dunes Lake Terrace
Jacksonville, FL 32225

FROM: C. Michael Levy, Chair cml/dl
University of Florida
Institutional Review Board

SUBJECT: **Approval of Protocol # 2001 - 279**

TITLE: Instructional Practices and Preferences of Teachers in Alternative Schools

FUNDING: Unfunded

I am pleased to advise you that the University of Florida Institutional Review Board has recommended approval of this protocol. Based on its review, the UFIRB determined that this research presents no more than minimal risk to participants. Given your protocol, it is essential that you obtain signed documentation of informed consent from each participant. Enclosed is the dated, IRB-approved informed consent to be used when recruiting participants for the research.

If you wish to make any changes to this protocol, including the need to increase the number of participants authorized, you must disclose your plans before you implement them so that the Board can assess their impact on your protocol. In addition, you must report to the Board any unexpected complications that affect your participants.

If you have not completed this protocol by 9-Apr-2002, please telephone our office (392-0433), and we will discuss the renewal process with you.

It is important that you keep your Department Chair informed about the status of this research protocol.

CML:dl/js

cc: Dr. Linda Behar-Horenstein

Equal Opportunity/Affirmative Action Institution

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BIOGRAPHICAL SKETCH

Christine (Boyer) Neuenfeldt was born in Springfield, Ohio, and grew up in Ohio, New Jersey, Minnesota, and Wisconsin. She received her bachelor's degree in speech and theater arts and secondary education from Mankato State College in 1973. Christine received her master's degree in secondary education in 1990 and her education specialist's degree in 1991 from the University of Idaho. Married to Alan Neuenfeldt, a retired Navy officer, she lived in California, Puerto Rico, South Carolina, Idaho, and Rhode Island before settling in Florida. The Neuenfeldts have four children: Erin, Beth, Lori and Michael.

Christine has taught English, math, and social studies in alternative middle and high schools for seven years and served as an alternative school program supervisor for three years. In addition, she has taught courses for five years with the Navy Campus for Achievement and served as an adjunct instructor at a community college. She has also been a department head for the military. Employed by a behavioral health services agency for the past 11 years, Christine has worked as a program administrator of a residential juvenile justice program, a director of adolescent programs, and is currently the director of research. A long standing interest in alternative school programs combined with a curiosity about organizational leadership led her to pursue a Ph.D. in educational leadership with a focus on curriculum.

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

Linda Behar-Horenstein

Linda Behar-Horenstein, Chair
Associate Professor of
Educational Leadership, Policy, and
Foundations

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

James L. Doud

James Doud
Professor of Educational Leadership, Policy,
and Foundations

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

R. C. Wood
Professor of Educational Leadership, Policy,
and Foundations

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

Diane Y. Silva

Diane Y. Silva
Assistant Professor of Teaching and
Learning

This dissertation was submitted to the Graduate Faculty of the College of Education and to the Graduate School and was accepted as partial fulfillment of the requirements for the degree of Doctor of Philosophy.

December 2003

Dean, College of Education

Dean, Graduate School